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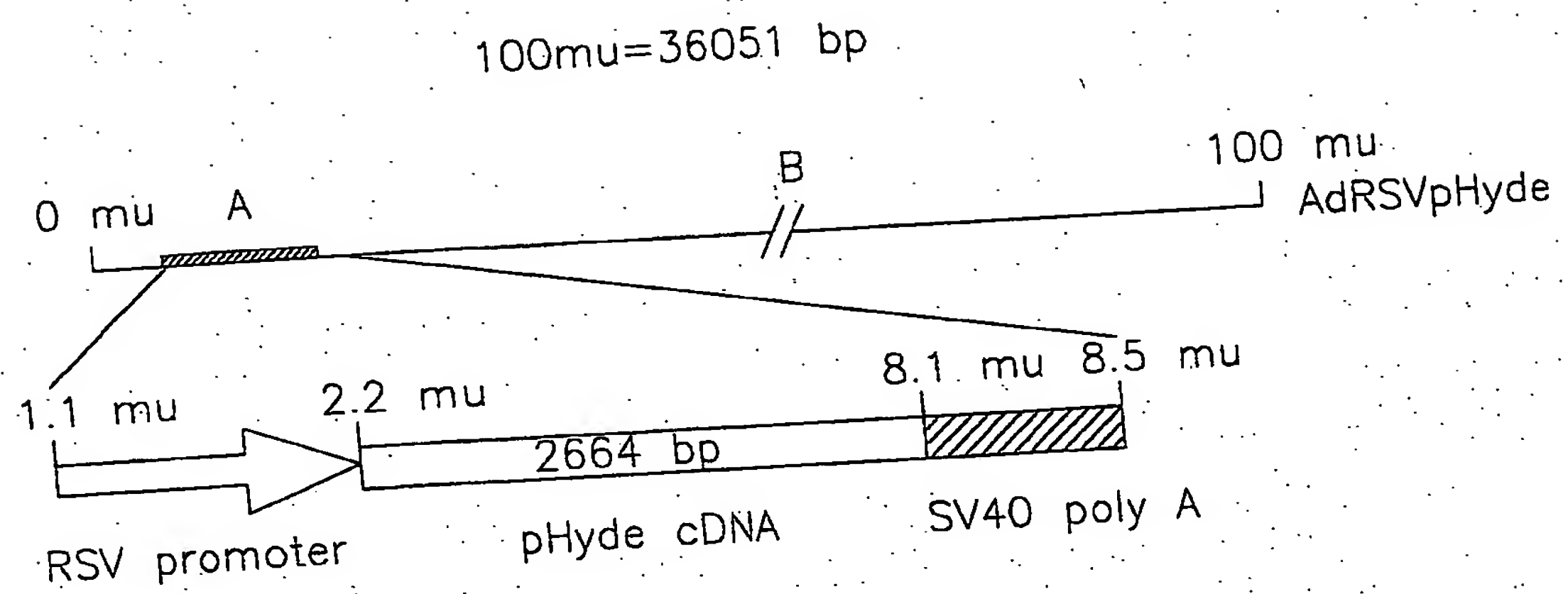


FIG.1

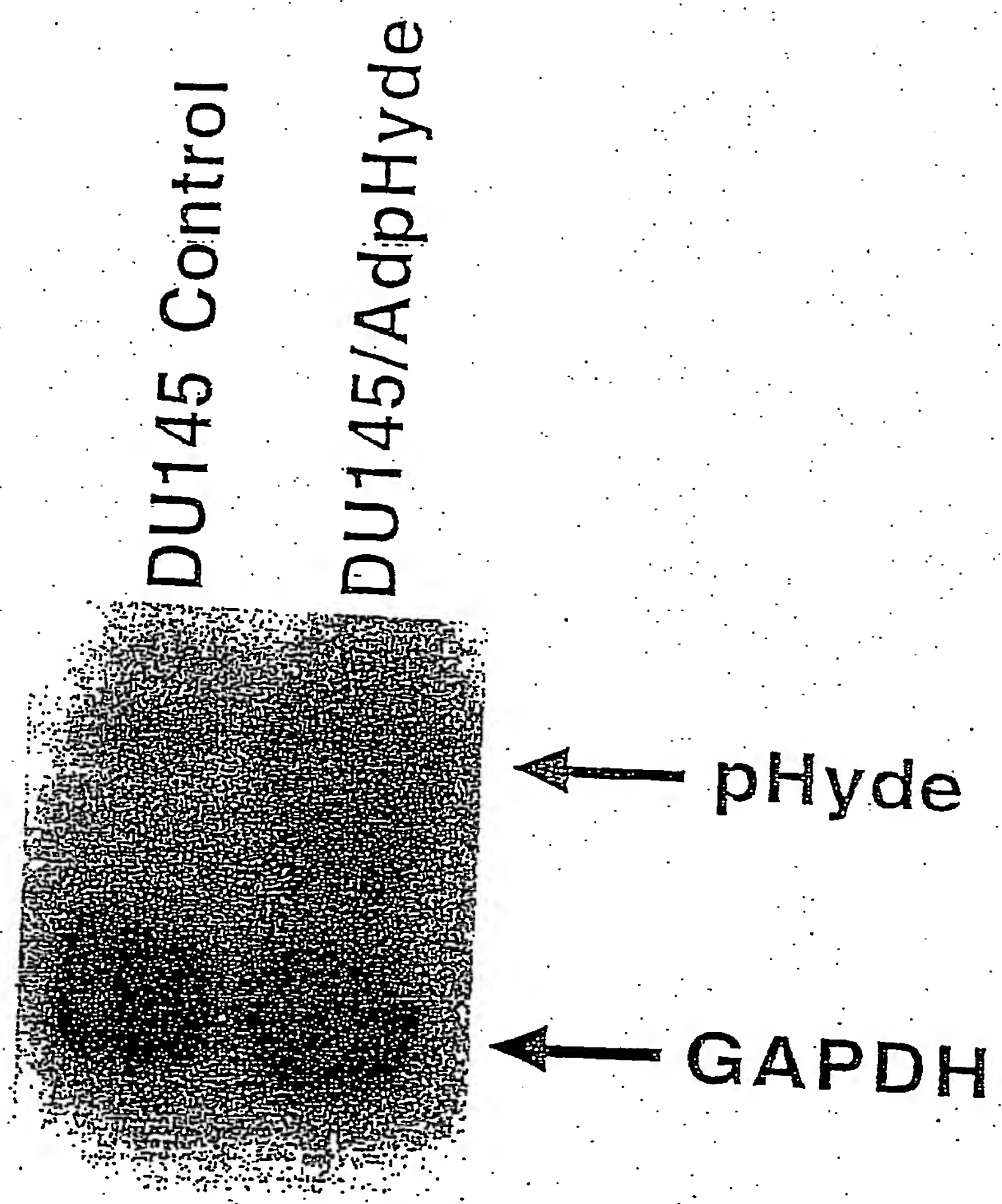


FIG. 2A

**DU145 Control**

**DU145/AdRSVpHyde**



**← pHyde**

**FIG. 2B**

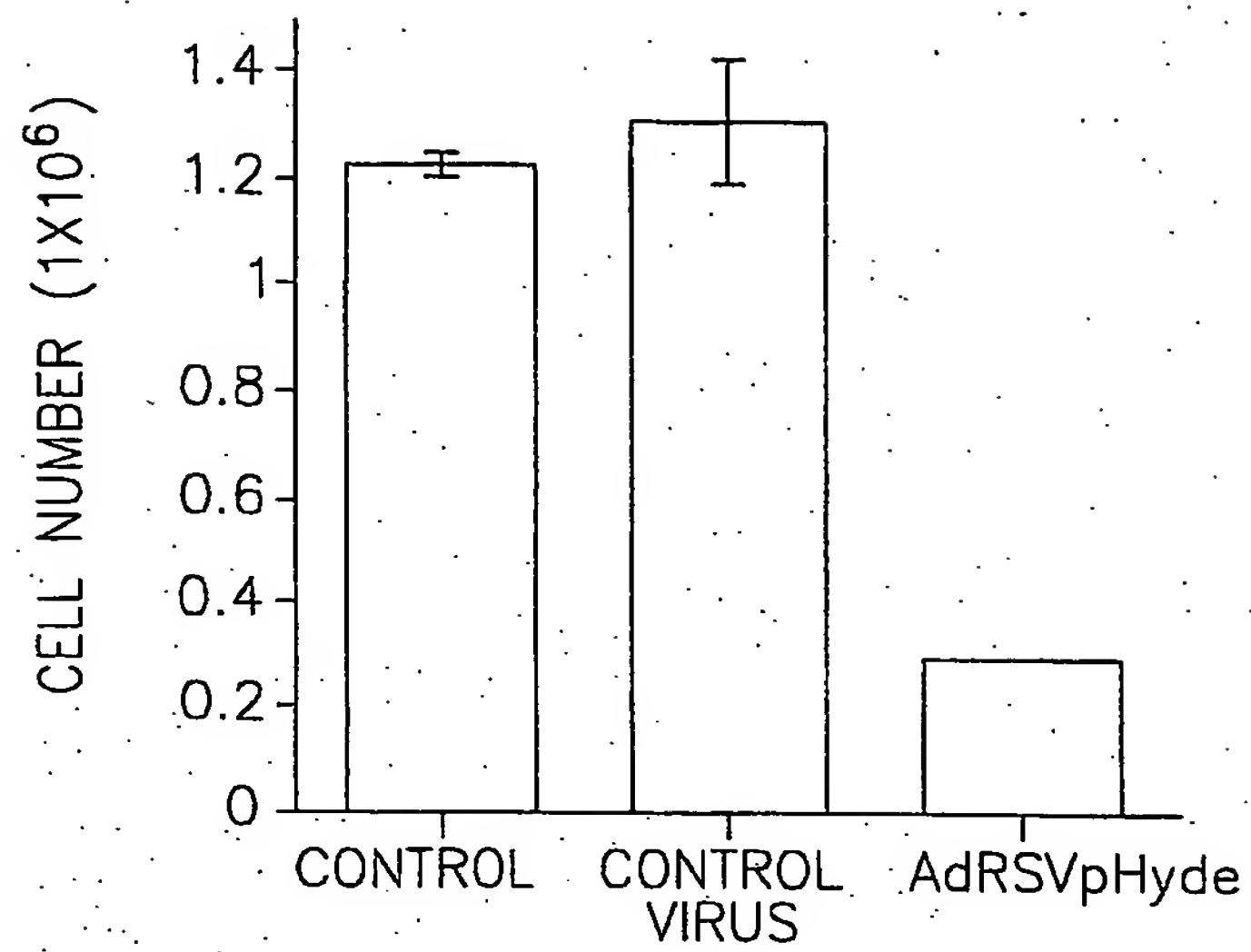


FIG.3A

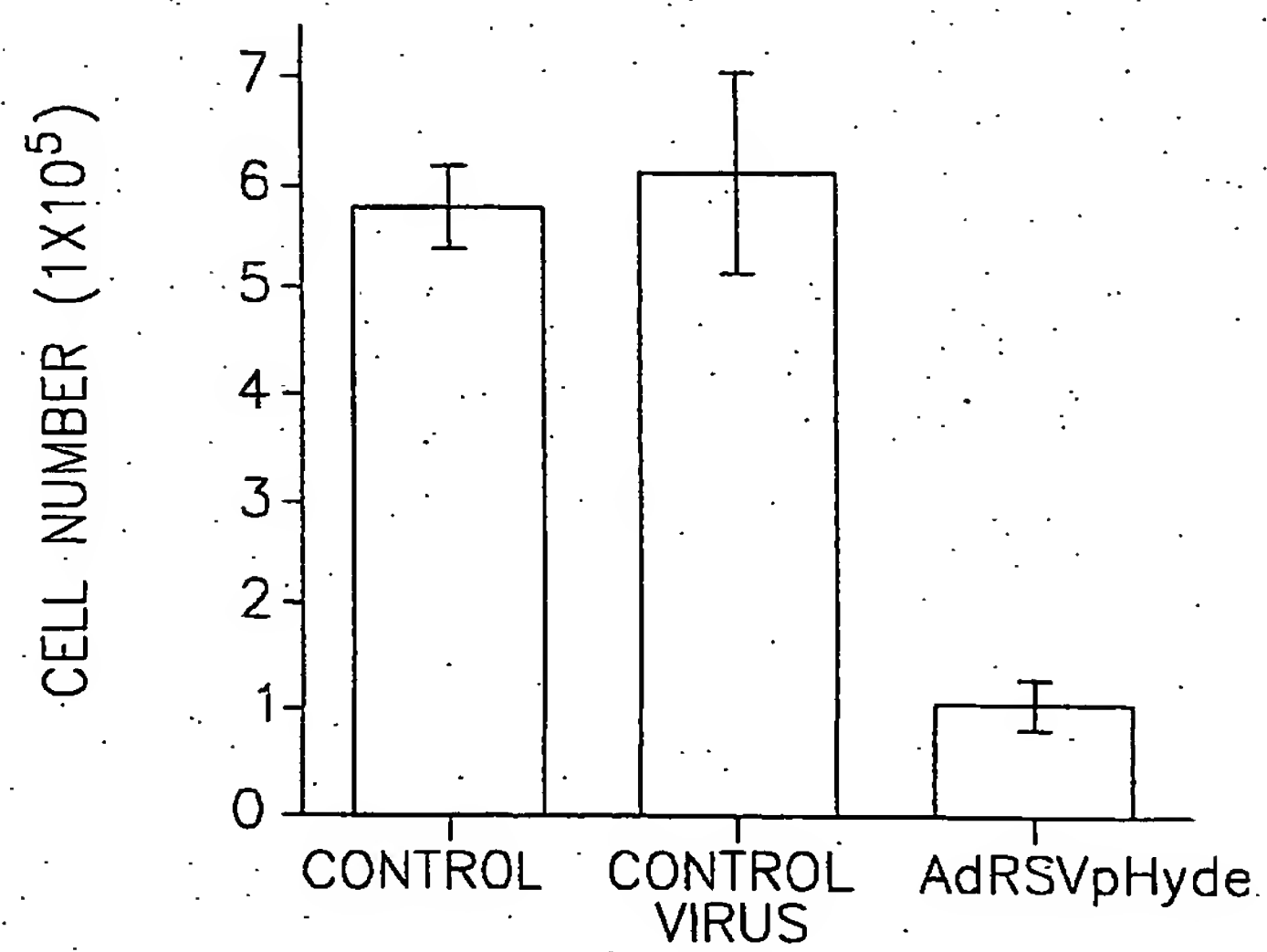


FIG.3B

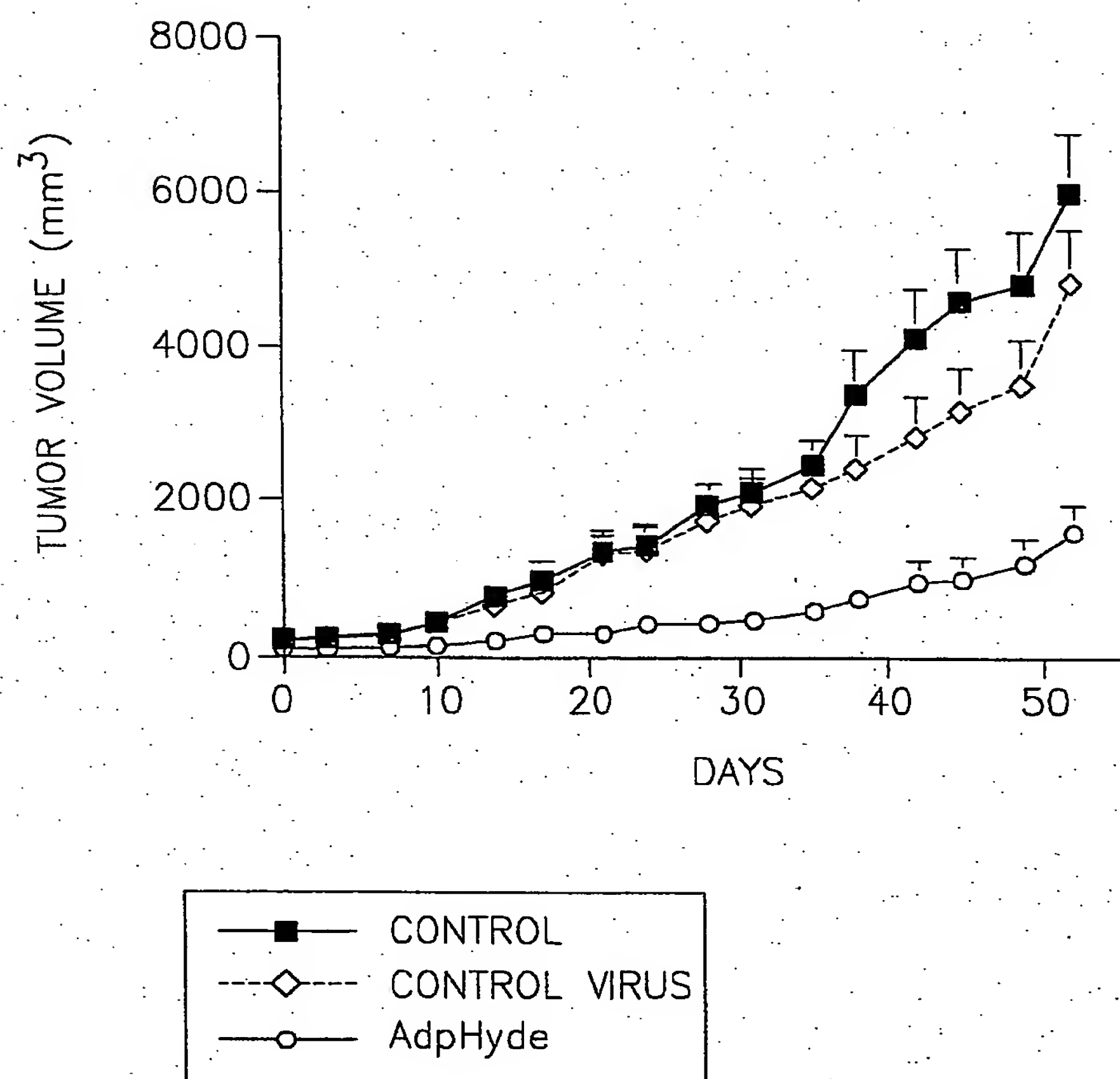


FIG.4



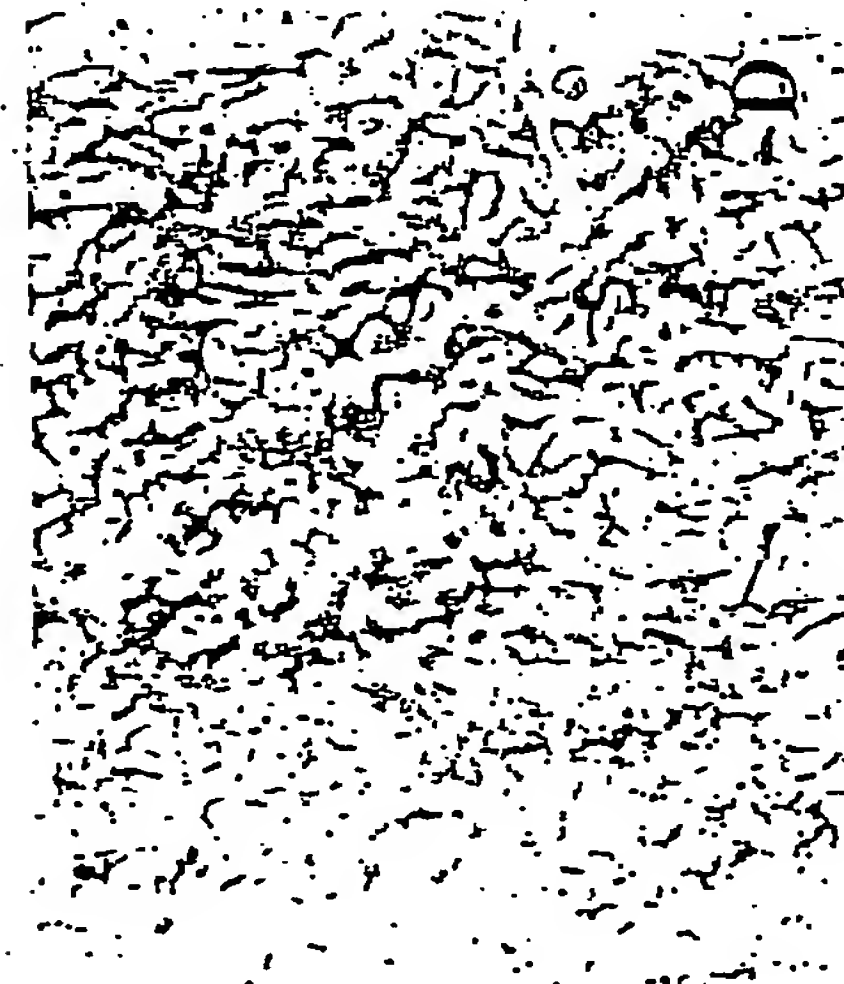
DU145 Control



DU145/Control Virus



DU145/AdRSVpHyde



LNCaP Control



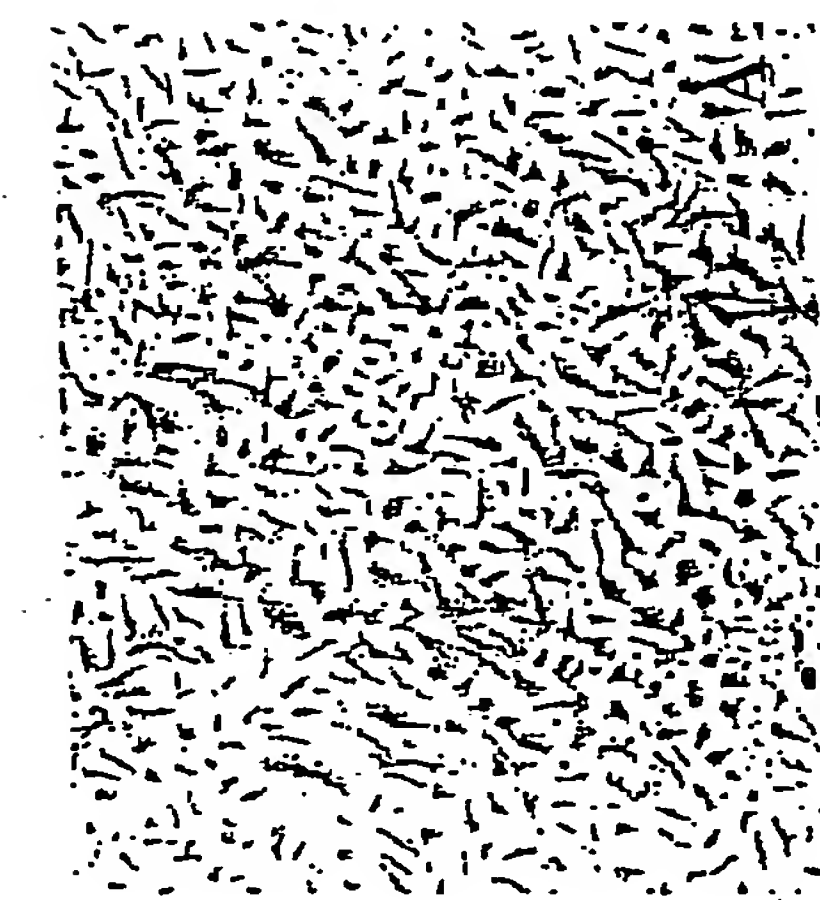
LNCaP/Control Virus



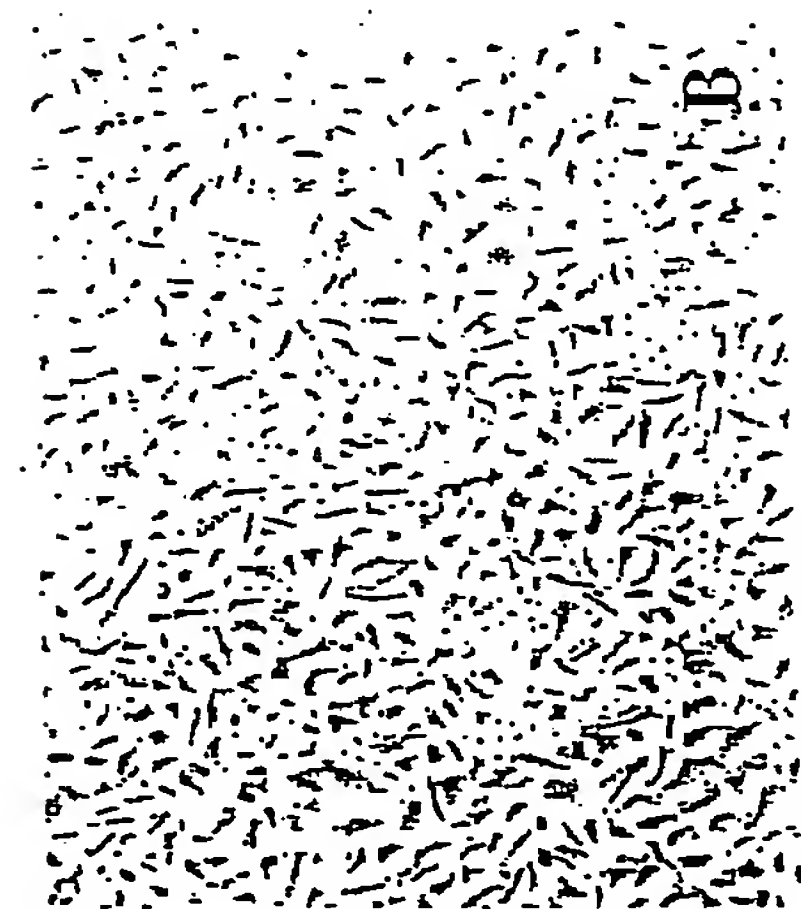
LNCaP/AdRSVpHyde

FIG. 5

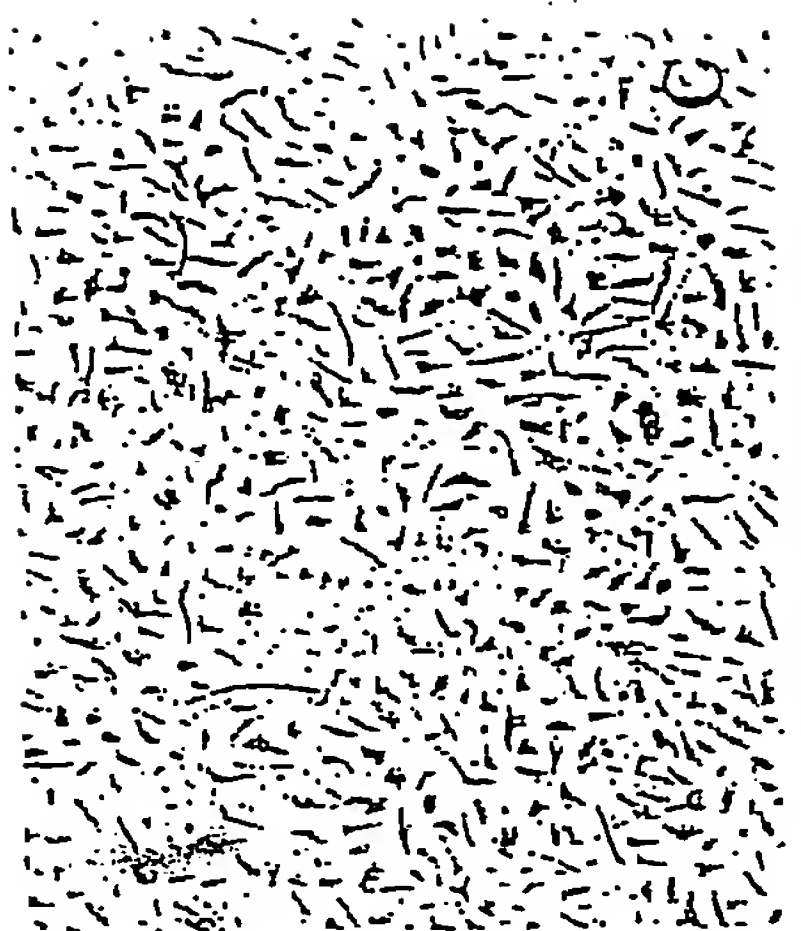




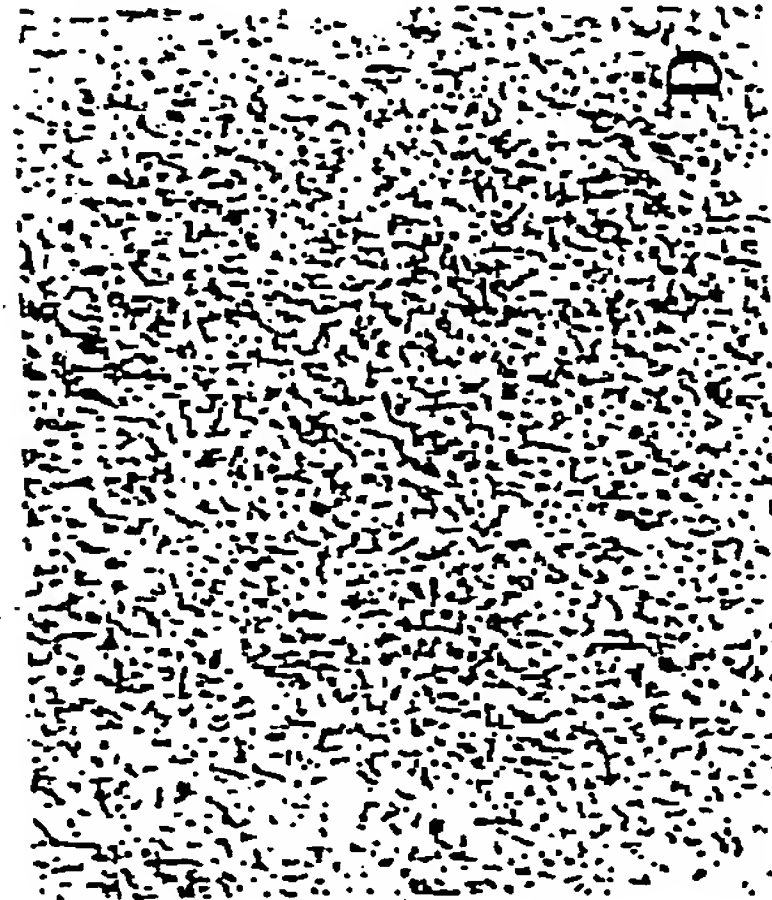
PC-3/Control



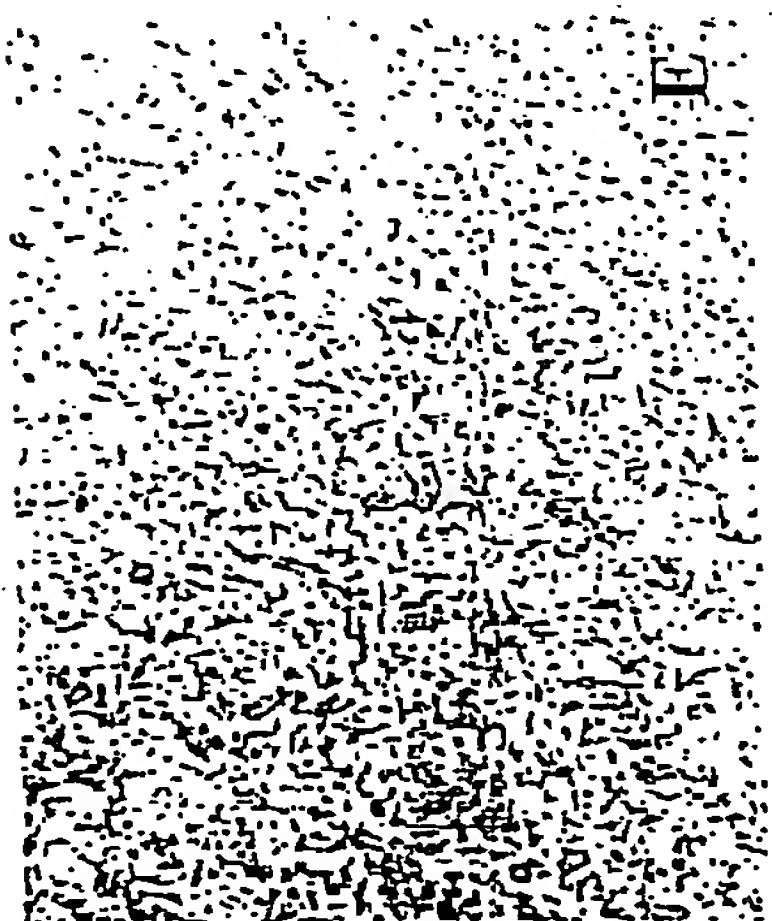
PC-3/Contro Virus



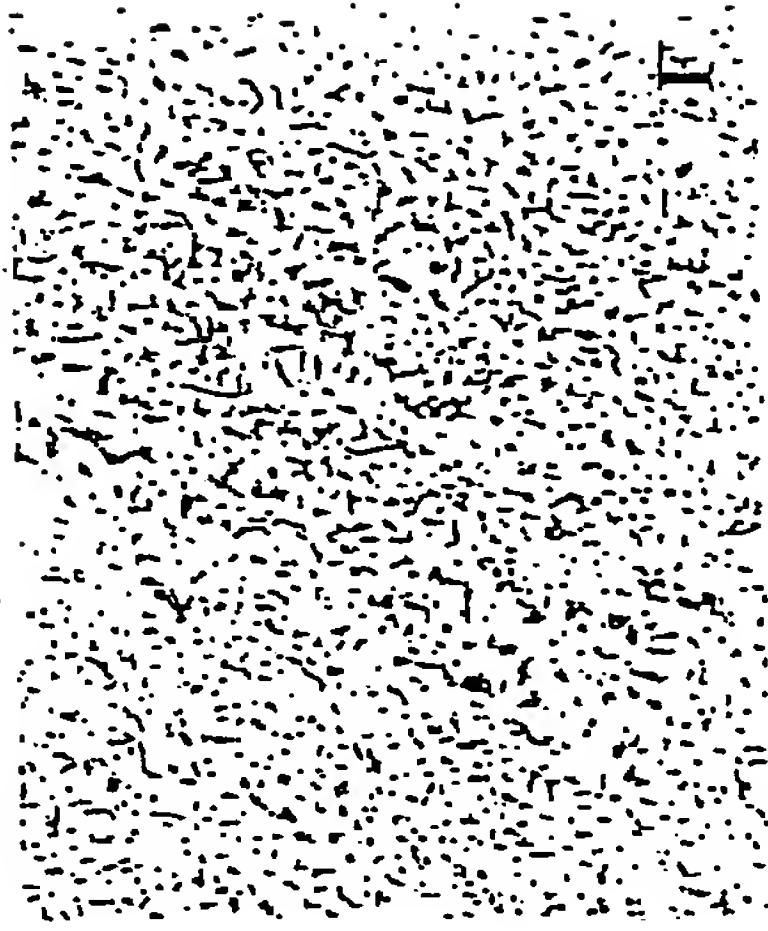
PC-3/AdRSVpHyde



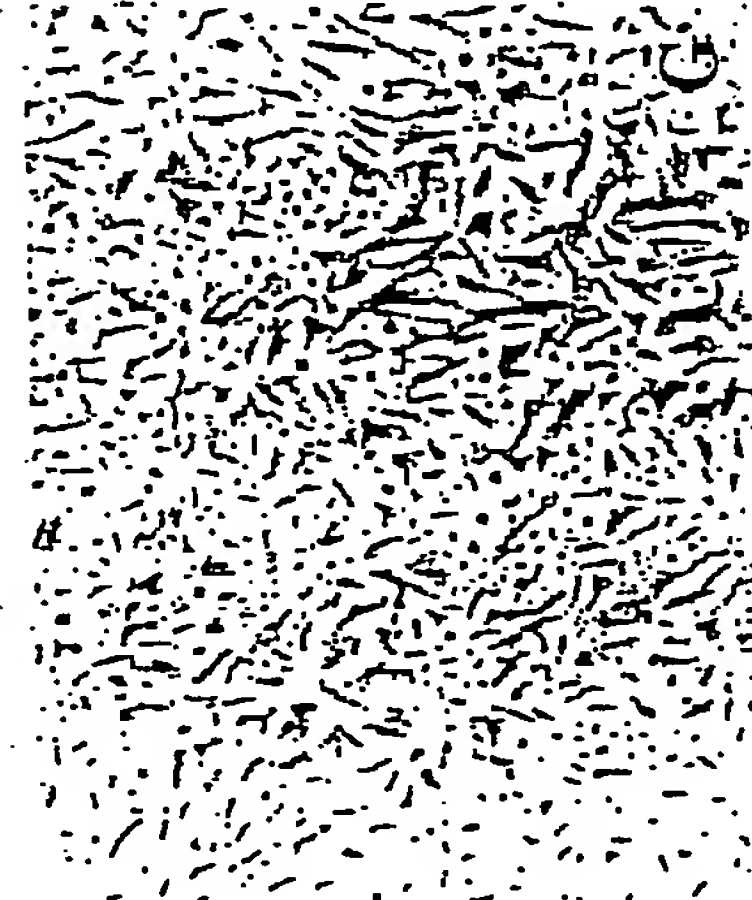
TSU/Control



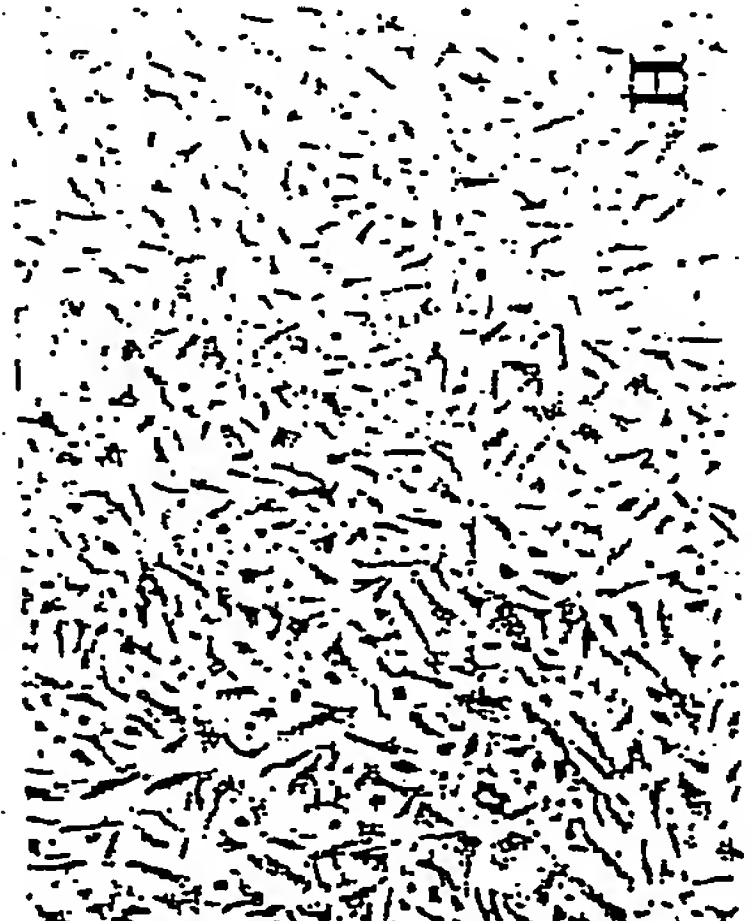
TSU/Contro Virus



TSU/AdRSVpHyde



PPC-1/Control



PPC-1/Contro Virus



PPC-1/AdRSVpHyde

FIG. 6



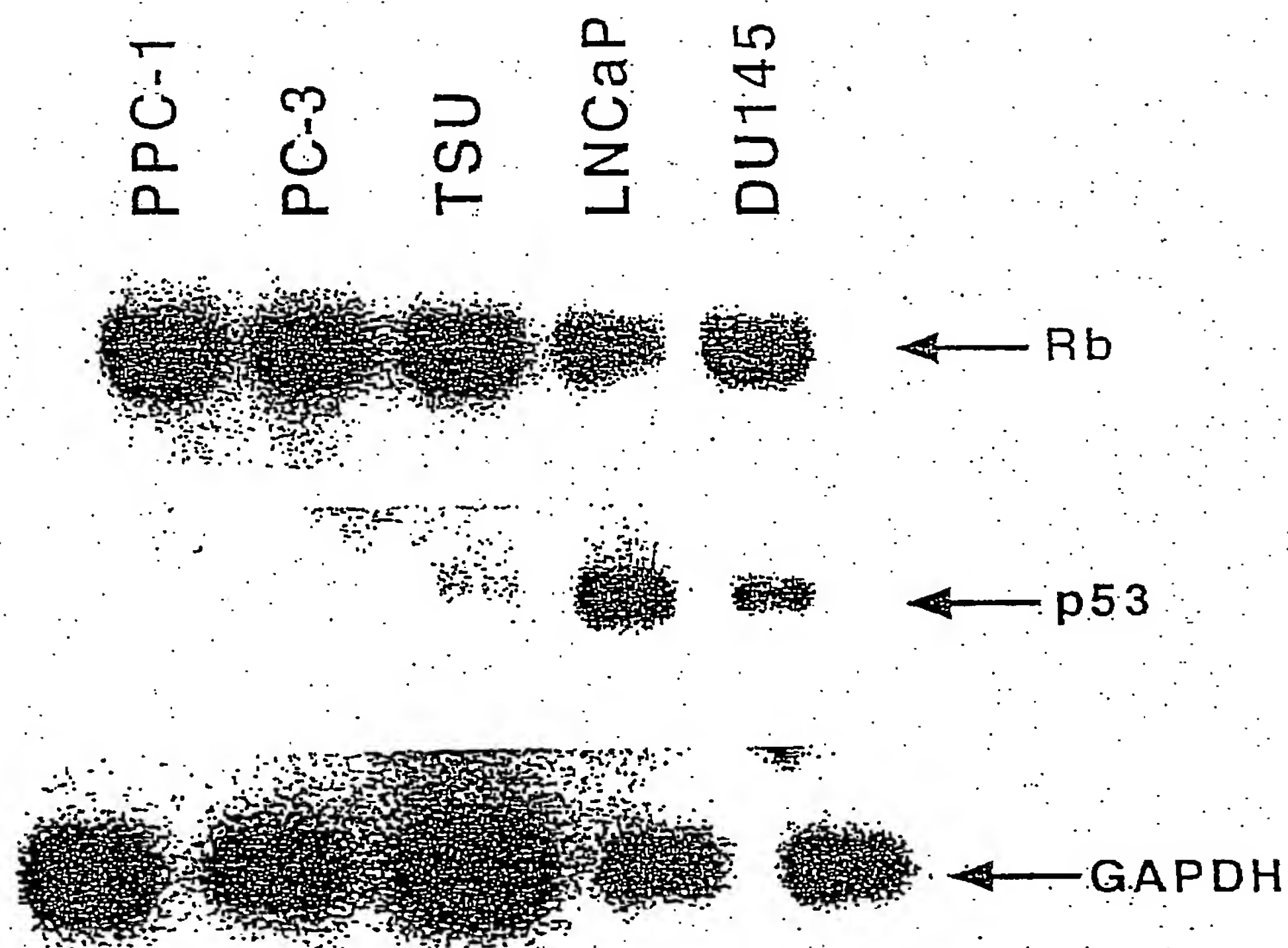


FIG. 7

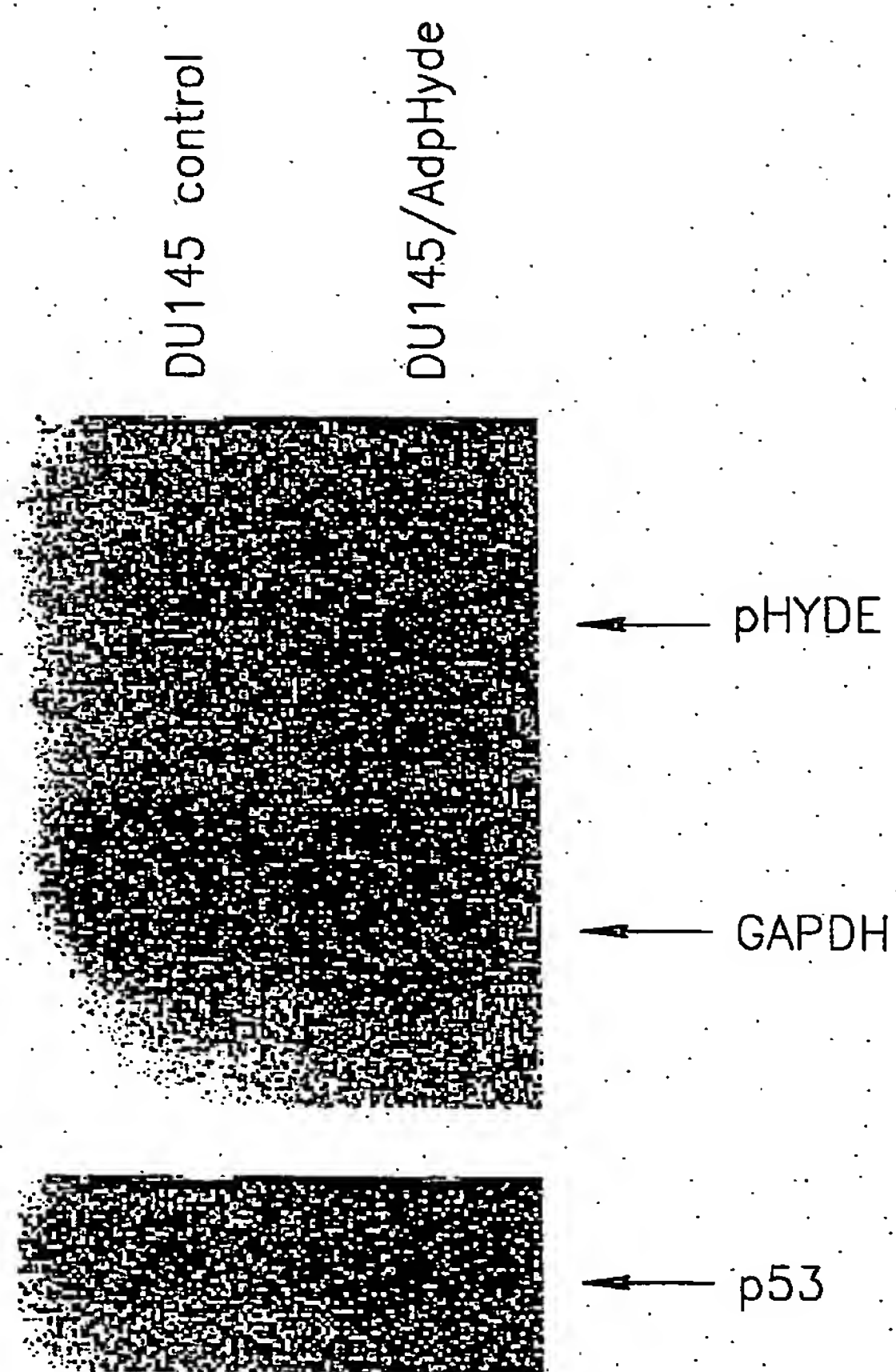


FIG.8

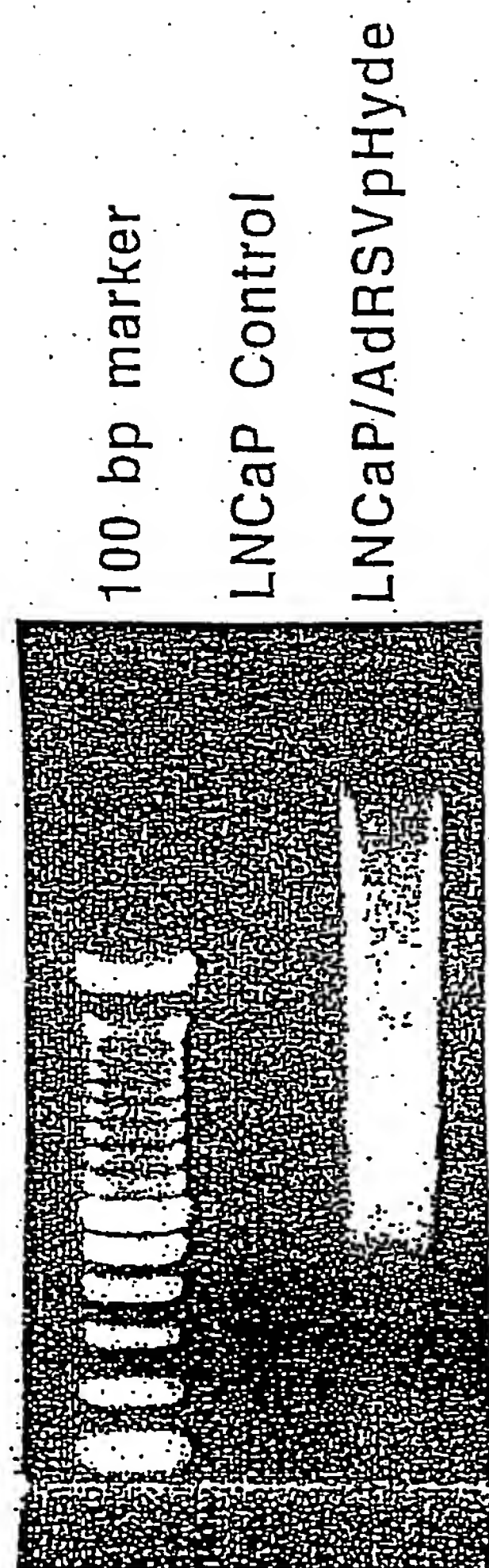


FIG. 9

SEQUENCE OF REGION A OF AdRSVpHyde:

GCGGCCGCCATCATCAATAATATACCTTATTTTGGATTGAAG  
CCAATATGATAATGAGGGGGTGGAGTTTGTGACGTGGC  
GCGGGGCGTGGGAACGGGGCGGGTGACGTAGTAGTGTGGC  
GGAAGTGTGATGTTGCAAGTGTGGCGGAACACATGTAAGC  
GACGGATGTGGCAAAAGTGACGTTTTTGGTGTGCGCCGGTG  
TACACAGGAAGTGACAATTTTCGCGCGGTTTTAGGCGGA  
TGTTGTAGTAAATTTGGGCGTAACCGAGTAAGATTTGGCCAT  
TTTCGCGGGGAAACTGAATAAGAGGAAGTGAAATCTGA  
ATAATTTTGTGTTACTCATAGCGCGTAATATTTGTCTAGGGCC  
GCGGGGACTTTGACCGTTTACGTGGAGACTCGCCCAG  
GGCGCGCCCCGATGTACGGGCCAGATATACGCGTATCTGAG  
GGGACTAGGGTGTGTTTAGGCGAAAAGCGGGGCTTCGGT  
TGTACGCGGTTAGGAGTCCCCTCAGGATATAGTAGTTTCGCT  
TTTGCATAGGGAGGGGGGAAATGTAGTCTTATGCAATAC  
TCTTGTAGTCTTGCAACATGGTAACGATGAGTTAGCAACATG  
CCTTACAAGGAGAGAAAAAGCACCGTGCATGCCGATTG  
GTGGAAGTAAGGTGGTACGATCGTGCCTTATTAGGAAGGCTA  
ACAGACGGGTCTGACATGGATTGGACGAACCACTGAATT  
CCGCATTGCAGAGATATTGTATTTAAGTGCCTAGCTCGATAC  
AATAAACGCCATTTGACCATTCAACACATTGGTGTGCA  
CCTCCGGCCCTGGCCACTCTCTTCCGCATCGCTGTCTGCGGG  
GGCCAGCTGTTGGGCTCGCGGTTGAGGACAAACTCTTC  
GCGGTCTTTCCAGTACTCTTGGATCGGAAACCCGTCGGCCCTC  
CGAACGGTACTCCGCCGCCGAGGGACCTGAGCGAGTCC  
GCATCGACCGGATCGGAAAACCTCTCGAGAAAGGCGTGTA  
CCAGTCACAGTCGCTCTAGAACTAGTGGATCCCCCGGGC  
TGCAGGAATTCGATAATTCGGCACGAGGCTGCCGAGGCACT  
GTGATGTCCGGGGAGATGGACAAACCGCTCATCAGTCGC  
CGCTTGGTGGACAGTGATGGCAGTCTGGCTGAGGTCCCCAA  
GGAGGCTCCCAAAGTGGGCATCCTGGGCGAGCGGGGATTT  
TGCCCGGTCCCTGGCCACACGCCTGGTGGGCTCTGGCTTCT  
TTGTGGTGGTGGGAAGCCGTAACCCCAAACGCACTGCCG  
GCCTCTTCCCCTCCTTAGCCCAAGTGACTTTCCAGGAGGAGG  
CCGTGAGCTCTCCAGAGGTCACTTTTGTGGCCGTGTTT  
CGGGAGCACTACTCCTCACTGTGCAGTCTTGCTGACCAGTTG  
GCTGGCAAGATCCTAGTGGATGTAAGCAACCCACGGA  
GAAGGAGCGTCTTCAGCACCGCCAGTCGAACGCCGAGTACC  
TGGCCTCCCTCTTCCCTGCCTGCACTGTGGTCAAGGCCT  
TCAACGTCATCTCTGCATGGGCCCTACAGGCTGGCCCAAGG  
GATGGGAACAGGCAGGTGCTCATCTGCGGTGACCAGCTG  
GAAGCCAAGCACACCGTCTCAGAGATGGCGCGCGCCATGG  
GTTTCACCCCACTGGACATGGGATCCCTGGCCTCAGCGAG  
GGAGGTAGAGGCCATACCCCTGCGCCTCCTTCCATCCTGGA  
AGGTGCCCAACCCTCCTGGCCCTGGGGCTAAGCACACAAA

FIG.10A

GCTATGCCTACAACCTTCATCCGGGACGTTCTACAGCCGTACA  
TCCGGAAAGATGAGAACAAGTTCTACAAGATGCCCTG  
TCTGTGGTCAACACCACGaTACCCTGTGTGGCTTACGTGCTG  
CTGTCCCTGGTTTACCTGCCTGGTGTGCTGGCAGCTGC  
CCTTCAGCTGAGGAGGGGGACCAAGTACCAGCGCTTCCCAG  
ACTGGCTGGACCATTGGCTGCAGCACCGCAAGCAGATCG  
GGCTACTCAGCTTTTTTTTTTCGCCATGCTGCAGCTCTCTACAG  
CTTCTGCCTGCCGCTGCGCCGCTCCCACCGCTATGAT  
CTGGTCAACCTGGCTGTGAAGCAGGTCCTGGCCAACAAGAG  
CCGCCTCTGGGTTGAGGAAGAAGTCTGGCGGATGGAGAT  
ATACCTGTCCCTGGGTGTGCTGGCTCTGGGCATGCTGTCACT  
GCTGGCGGTTACCTCGATCCCTTCCATTGCAAACCTCAC  
TCAACTGGAAGGAGTTCAGCTTTGTGCAGTCCACGCTGGGC  
TTCGTGGCCCTGATGCTGAGCACAATGCACACCCTCACC  
TACGCGCTGGACCCGTGCTTTTGGAGAAAACCACTACAAGTTC  
TACCTGCCACCCACATTCACGCTCACGCTGCTCCTGCC  
CTGTGTCATCATCCTGGCCAAGGGCCTCTTCCTCCTGCCCTG  
CCTCAGCCACAGACTCACCAAGATCCGCAGGGGGCTGGG  
AGAGGGATGGTGCCGTCAAGTTCATGCTGCCCGCTGGCCAC  
ACACAGGGGGGAGAAAACAAGCCACGTGTGAGGCCCTGGA  
AATGGAGACAGGCACAGCTTGTGGGGGCCCTGGGCTGGGT  
TCGGGTCTCTTTTCTGGGATGGTATATGCGTGGGTGGCCG  
AGGTCTGAATTTCTGGGATGCAGGTGTATGCCGAGATACTCA  
GAATGGCGTACCACACATGCGATAAGAGCTCACATATA  
TTTCATATATAATAGGATTTTCTATTATTCTTAGTTAAAAAAA  
ATAGTGGGTCCCTTATATTTCAACTTATGCAGGGTCC  
CTATATTTCAACTTGAGCATTTTCAGAGCAAATGCCACACATTA  
AACAGCAGATCCCACCCTTGTGGTAGCTGCAGAGACA  
GACAGAACTTCTGGTtATGAGAGAGACTGTATTTTGTGGAT  
TCTACCTTTAATCCCCGTTCTCTACGTTcCCCTGTTA  
GCCACATCTTAACGTTGGTGCAGAGCTGGGACAAGAGCTGG  
CTCTGGTGCAGCCTCCCCCATCCCAGGGCTAGGAAACAA  
GCCTCTGATGAACAGAGGGACCAGGTCTGGACCCTCCTGCT  
CCCGCTTCCCTGGGCTCGAGTGGGGAGGCTCAGCGGGAT  
CCCCCGCAATCTGTGCAGGAGTTTTTCACAGGTCTGTCTTTT  
TTCCGGGAGCGGTCTGAAGCGGCCCATCTGATCCTAG  
CTGAGCCGAGATTGTTCCCCACTCCCTGAAAGTCCAGAGTCA  
CCGTGGAGCCTGCAAATTGCTCCTTCTGCGAAGGTGTG  
AAGTCACCGTCTCACCAGAGCCATTAACGAACCTGATCTTCA  
GAAGAAGCATAATTGTTTCCCCTCCATTAAGTTGGTGG  
TGACCCTCTTTAAACCACTGTGCCTTCTCGCCTTTCCCATCAC  
TAATTTGGGCATCTCCATGGAGTGGACTCTTGTCGGG  
GCAGTTCAGGGGGGAGGGAAGCATTAGAGATTGCGGAGAA  
TAACCATCGAAGCCTCCCTTGGATGTTCCCAGGCGTGCCT

FIG.10B



TCATTAAATTGGTCCCTAATGAGAATGACAGGGGGACCCCTGT  
 TGCCTGTaTGCAGAGAACCAGCCTTCTGAGCACCCAGG  
 AAACACAGTGGCCCCACGCCCTTCAGGGGGGTCCCACGTCC  
 CCTTTCCCATGCTTTTTGCCTCCCTCCCTCCCGGTTACAA  
 TCAACCATAAAAGTCTGCAAATATTGTTTTTTGAATTATCAAG  
 CTTATCGATACCGTCGAAACTTGTTTTATTGCAGCTTA  
 TAATGGTTACAAATAAAGCAATAGCATCACAAATTTACAAAT  
 AAAGCATTTTTTTTCACTGCATTCTAGTTGTGGTTTTGT  
 CCAAACATCAATGTATCTTATCATGTCTGGATCCGACCTCG  
 G

SEQUENCE OF REGION B OF AdRSVpHyde:

ATCTGGAAGGTGCTGAGGTACGATGAGACCCGACACCAGGTG  
 CAGACCCTGCGAGTGTGGCGGTAAACATATTAGGAACCA  
 GCCTGTGATGCTGGATGTGACCGAGGAGCTGAGGCCCGATC  
 ACTTGGTGCTGGCCTGCACCCGCGCTGAGTTTGGCTCTA  
 GCGATGAAGATACAGATTGAGGTACTGAAATGTGTGGGCGT  
 GGCTTAAGGGTGGGAAAGAATATATAAGGTGGGGGTCTT  
 ATGTAGTTTTTGTATCTGTTTTGCAGCAGCCGCCGCCCATG  
 AGCACCAACTCGTTTTGATGGAAGCATTGTGAGCTCATA  
 TTTGACAACGCGCATGCCCCCATGGGCCGGGGTGCGTCAGA  
 ATGTGATGGGCTCCAGCATTGATGGTCGCCCCGTCCTGC  
 CCGCAAACCTCTACTACCTTGACCTACGAGACCGTGTCTGGAA  
 CGCCGTTGGAGACTGCAGCCTCCGCCGCCGCTTCAGCC  
 GCTGCAGCCACCGCCCCGCGGGATTGTGACTGACTTTGCTTTC  
 CTGACCCGCTTGCAAGCAGTGCAGCTTCCCGTTTCATC  
 CGCCCGCGATGACAAGTTGACGGCTCTTTTGGCACAATTGG  
 ATTCTTTGACCCGGGAACCTTAATGTCGTTTTCTCAGCAGC  
 TGTTGGATCTGCGCCAGCAGGTTTCTGCCCTGAAGGCTTCCT  
 CCCCTCCCAATGCGGTTTAAAACATAAATAAAAAACCA  
 GACTCTGTTTGGATTTGGATCAAGCAAGTGTCTTGCTGTCTTT  
 ATTTAGTGGGTTTTTGC GCGCGCGGTAGGCCCGGGACCA  
 GCGGTCTCGGTCGTTGAGGGTCCTGTGTATTTTTTCCAGGAC  
 GTGGTAAAGGTGACTCTGGATGTTTCAGATACATGGGCA  
 TAAGCCCGTCTCTGGGGTGGAGGTAGCACCACTGCAGAGCT  
 TCATGCTGCGGGGTGGTGTGTAGATGATCCAGTCGTAG  
 CAGGAGCGCTGGGCGTGGTGCCTAAAAATGTCTTTCAGTAG  
 CAAGCTTATTGCCAGGGGCAGGCCCTTGGTGTAAGTGTT  
 TACAAAGCGGTTAAGCTGGGATGGGGGCATACGTGGGGATA  
 TGAGATGCATCTTGGACTGTATTTTTAGGTTGGCTATGT  
 TCCCAGCCATATCCCTCCGGGGATTTCATGTTGTGCAGAACCA  
 CCAGCACAGTGTATCCGGTGCACCTTGGGAAATTTGTCA  
 TGTAGCTTAGAAGGAAATGCGTGGAAGAACTTGGAGACGCC  
 CTTGTGACCTCCAAGATTTTCCATGCATTCGTCCATAAT  
 GATGGCAATGGGCCACGGGCGGCGGCTGGGCGAAGATA  
 TTTCTGGGATCACTAACGGCATAGTTGTGTTCCAGGATGA

FIG.10C

GATCGTCATAGGCCATTTTTTACAAAGCGCGGGGCGGAGGGTG  
CCAGACTGCGGTATAATGGTTCCATCCGGCCCAGGGGCG  
TAGTTACCCTCACAGATTTGCATTTCCCACGCTTTGAGTTCAG  
ATGGGGGGGATCATGTCTACCTGCGGGGCGATGAAGAA  
AACGGTTTCCGGGGTAGGGGAGATCAGCTGGGAAGAAAGC  
AGGTTCTTGAGCAGCTGCGACTTACCGCAGCCGGTGGGCC  
GCTAAATCACACCTATTACCGGGTGCAACTGGTAGTTAAGAG  
AGCTGCAGCTGCCGTCATCCCTGAGCAGGGGGGGCCACT  
TCGTTAAGCATGTCCCTGACTCGCATGTTTTCCCTGACCAAAT  
CCGCCAGAAGGCGCTCGCCGCCAGCGATAGCAGTTC  
TTGCAAGGAAGCAAAGTTTTTCAACGGTTTGAGACCGTCCGC  
CGTAGGCATGCTTTTGAGCGTTTGACCAAGCAGTTCCA  
GGCGGTCCCACAGCTCGGTACCTGCTCTACGGCATCTCGA  
TCCAGCATATCTCCTCGTTTTCGCGGGTTGGGGCGGGCTTT  
CGCTGTACGGCAGTAGTCGGTGCTCGTCCAGACGGGCCAGG  
GTCATGTCTTTCCACGGGGCGCAGGGTCCTCGTCAGCGTA  
GTCTGGGTACGGTGAAGGGGTGCGCTCCGGGGCTGCGCGC  
TGGCCAGGGTGCGCTTGAGGCTGGTCCTGCTGGTGCTGAA  
GCGCTGCCGGTCTTCGCCCTGCGCGTCGGCCAGGTAGCATT  
TGACCATGGTGTCATAGTCCAGCCCCTCCGCGGGCGTGGC  
CCTTGGCGCGCAGCTTGCCCTTGAGAGGAGGCGCCGCACGA  
GGGGCAGTGACAGACTTTTGAGGGCGTAGAGCTTGGGGCGCG  
AGAAATACCGATTCCGGGGAGTAGGCATCCGCGCCGACGGC  
CCCGCAGACGGTCTCGCATTCACAGGCCAGGTGAGCTC  
TGGCCGTTCCGGGGTCAAAAACCAGGTTTCCCCCATGCTTTTT  
GATGCGTTTCTTACCTCTGGTTTCCATGAGCCGGTGTC  
CACGCTCGGTGACGAAAAGGCTGTCCGTGTCCCCGTATACA  
GACTTGAGAGGCCTGTCCTAGAGCGGTGTTCCGCGGTCC  
TCCTCGTATAGAACTCGGACCACTCTGAGACAAAGGCTCGC  
GTCCAGGCCAGCACGAAGGAGGCTAAGTGGGAGGGGTA  
GCGGTCGTTGTCCACTAGGGGGTCCACTCGCTCCAGGGTGT  
GAAGACACATGTCGCCCTCTTCGGCATCAAGGAAGGTGA  
TTGGTTTGTAGGTGTAGGCCACGTGACCGGGTGTTCCCTGAA  
GGGGGGCTATAAAGGGGGGTGGGGGCGCGTTTCGTCTAC  
CTCTCTTCCGCATCGCTGTCTGCGAGGGGCCAGCTGTTGGGG  
TGAGTACTCCCTCTGAAAAGCGGGCATGACTTCTGCGCT  
AAGATTGTCAGTTTCCAAAAACGAGGAGGATTTGATATTCAC  
CTGGCCCGCGTTGATGCCTTTGAGGGTGGCCGCATCCA  
TCTGGTCAGAAAAGACAATCTTTTTGTTGTCAAGCTTGGTGG  
CAAACGACCCGTAGAGGGCGTTGGACAGCAACTTGGCG  
ATGGAGCGCAGGGTTTGGTTTTTGTGCGCATCGGCGCGCTC  
CTTGGCCGCGATGTTTAGCTGCACGTATTCGCGCGCAAC  
GCACCGCCATTCCGGGAAAGACGGTGGTGCGCTCGTCGGGC  
ACCAGGTGCACGCGCCAACCGCGGTTGTGCAGGGTGACAA  
GGTCAACGCTGGTGGCTACCTCTCGCGCTAGGCGCTCGTTG  
GTCCAGCAGAGGCGGGCCGCCCTTGCGCGAGCAGAATGGC

FIG.10D



GGTAGGGGGGTCTAGCTGCGTCTCGTCCGGGGGGGTCTGCGTC  
CACGGTAAAGACCCCGGGCAGCAGGCGCGCGTCGAAGTA  
GTCTATCTTGCATCCTTGCAAGTCTAGCGCCTGCTGCCATGC  
GCGGGCGGCAAGCGCGCGCTCGTATGGGTTGAGTGGGG  
GACCCCATGGCATGGGGTGGGTGAGCGCGGAGGCGTACAT  
GCCGCAAATGTCGTAAACGTAGAGGGGCTCTCTGAGTATT  
CCAAGATATGTAGGGTAGCATCTTCCACCGCGGATGCTGGC  
GCGCACGTAATCGTATAGTTTCGTGCGAGGGAGCGAGGAG  
GTCGGGACCGAGGTTGCTACGGGCGGGCTGCTCTGCTCGG  
AAGACTATCTGCCTGAAGATGGCATGTGAGTTAAATGATA  
TGGTTGGACGCTGGAAGACGTTGAAGCTGGCGTCTGTGAGA  
CCTACCGCGTCACGCACGAAGGAGGCGTAGGAGTCGCGC  
AGCTTCTTGACCAGCTCGGCGGTGACCTGCACGTCTAGGGC  
GCAGTAGTCCAGGGTTTCCTTGATGATGTCATACTTATC  
CTGTCCCTTTTTTTTTCCACAGCTCGCGGTTGAGGACAAACTCT  
TCGCGGTCTTTCCAGTACTCTTGGATCGGAAACCCGT  
CGGCCTCCGAACGGTAAGAGCCTAGCATGTAGAACTGGTTG  
AGGGCCTGGTAGGCGCAGCATCCCTTTTTCTACGGGTAGC  
GCGTATGCCTGCGCGGCCTTCCGGAGCGAGGTGTGGGTGA  
GCGCAAAGGTGTCCCTGACCATGACTTTGAGGTACTGGTA  
TTTGAAGTCAGTGTCGTCGCATCCGCCCTGCTCCCAGAGCAA  
AAAGTCCGTGCGCTTTTTTGGAAACGCGGATTTGGCAGGG  
CGAAGGTGACATCGTTGAAGAGTATCTTTCCCGCGCGAGGC  
ATAAAGTTGCGTGTGATGCGGAAGGGTCCCGGCACCTCG  
GAACGGTTGTTAATTACCTGGGCGGCGAGCACGATCTCGTT  
AAAGCCGTTGATGTTGTGGCCACAAATGTAAAGTTCCAA  
GAAGCGCGGGATGCCCTTGATGGAAGGCAATTTTTTAAGTTC  
CTCGTAGGTGAGCTCTTCAGGGGAGCTGAGCCCGTGCT  
CTGAAAGGGGCCAGTCTGCAAGATGAGGTGTGGAAGCGAC  
GAATGAGCTCCACAGGTCACGGGCCATTAGCATTTGCAGG  
TGGTCGCGAAAGGTCCTAAACTGGCGACCTATGGCCATTTTT  
TCTGGGGTGATGCAGTAGAAGGTAAGCGGGTCTTGTTT  
CCAGCGGTCCCATCCAAGGTTTCGCGGCTAGGTCTCGCGCGG  
CAGTCACTAGAGGCTCATCTCCGCCGAACCTTCATGACCA  
GCATGAAGGGCACGAGCTGCTTCCCAAAGGCCCCCATCCAA  
GTATAGGTCTCTACATCGTAGGTGACAAAGAGACGCTCG  
GTGCGAGGATGCGAGCCGATCGGGAAGAACTGGATCTCCC  
GCCACCAATTGGAGGAGTGGCTATTGATGTGGTGAAAGTA  
GAAGTCCCTGCGACGGGCCGAACACTCGTGCTGGCTTTTTGT  
AAAAACGTGCGCAGTACTGGCAGCGGTGCACGGGCTGTA  
CATCCTGCACGAGGTTGACCTGACGACCGCGCACAAAGGAAG  
CAGAGTGGGAATTTGAGCCCTCGCCTGGCGGGTTTGGC  
TGGTGGTCTTCTACTTCGGCTGCTTGACCTTGACCGTCTGGC  
TGCTCGAGGGGAGTTACGGTGGATCGGACCACACGCC  
GCGCGAGCCCAAAGTCCAGATGTCCGCGCGCGGCGGTTCGG  
AGCTTGATGACAACATCGCGCAGATGGGAGCTGTCCATGG

FIG.10E

TCTGGAGCTCCCGCGGCGTCAGGTCAGGCGGGAGCTCCTGC  
AGGTTTACCTCGCATAGACGGGTCAGGGCGCGGGCTAGA  
TCCAGGTGATACCTAATTTCCAGGGGCTGGTTGGTGGCGGC  
GTCGATGGCTTGCAAGAGGCCGCATCCCCGCGGCGCGAC  
TACGGTACCGCGCGGGCGGGCGGTGGGCCGCGGGGGTGTCC  
TTGGATGATGCATCTAAAAGCGGTGACGCGGGCGAGCCCC  
CGGAGGTAGGGGGGGGCTCCGGACCCGCCGGGAGAGGGGG  
CAGGGGCACGTCGGCGCCGCGCGCGGGCAGGAGCTGGTGC  
T  
GCGCGCGTAGGTTGCTGGCGAACGCGACGACGCGGCGGTT  
GATCTCCTGAATCTGGCGCCTCTGCGTGAAGACGACGGGC  
CCGGTGAGCTTGAGCCTGAAAGAGAGTTTCGACAGAATCAAT  
TTCGGTGTCGTTGACGGCGGCCTGGCGCAAAATCTCCTG  
CACGTCTCCTGAGTTGTCTTGATAGGCGATCTCGGCCATGAA  
CTGCTCGATCTCTTCCTCCTGGAGATCTCCGCGTCCGG  
CTCGCTCCACGGTGGCGGCGAGGTCGTTGGAAATGCGGGC  
CATGAGCTGCGAGAAGGCGTTGAGGCCTCCCTCGTTCCAG  
ACGCGGCTGTAGACCACGCCCCCTTCGGCATCGCGGGCGCG  
CATGACCACCTGCGCGAGATTGAGCTCCACGTGCCGGGC  
GAAGACGGCGTAGTTTCGCGAGGCGCTGAAAGAGGTAGTTGA  
GGGTGGTTGGCGGTGTGTTCTGCCACGAAGAAGTACATAA  
CCCAGCGTCGCAACGTGGATTGTTGATATCCCCCAAGGCCT  
CAAGGCGCTCCATGGCCTCGAGGAAGTCCAAGGCGAAG  
TTGAAAACTGGGAGTTGCGCGCCGACACGGTTAACTCCTC  
CTCCAGAAGACGGATGAGCTCGGCGACAGTGTGCGGCAC  
CTCGCGCTCAAAGGCTACAGGGGCCTCTTCTTCTTCTTCAAT  
CTCCTCTTCCATAAGGGCCTCCCCTTCTTCTTCTTCTG  
GCGGCGGTGGGGGAGGGGGGACACGGCGGGCGACGACGGC  
GCACCGGGAGGCGGTGACAAAGCGCTTCGATCATCTCCCCG  
CGGCGACGGCGCATGGTCTCGGTGACGGCGCGGCCGTTCT  
CGCGGGGGCGCAGTTGGAAGACGCCGCCCGTCATGTCCCG  
GTTATGGGTTGGCGGGGGGCTGCCATGCGGCAGGGATACG  
GCGCTAACGATGCATCTCAACAATTGTTGTGTAGGTACTC  
CGCCGCCGAGGGACCTGAGCGAGTCCGCATCGACCGGATC  
GGAAAACCTCTCGAGAAAGGCGTCTAACCAGTCACAGTCG  
CAAGGTAGGCTGAGCACCGTGGCGGGCGGCAGCGGGCGGC  
GGTCGGGGTTGTTTCTGGCGGAGGTGCTGCTGATGATGTA  
ATTAAAGTAGGCGGTCTTGAGACGGCGGATGGTCGACAGAA  
GCACCATGTCCTTGGGTCCGGCCTGCTGAATGCGCAGGC  
GGTCGGCCATGCCCCAGGCTTCGTTTTGACATCGGCGCAGG  
TCTTTGTAGTAGTCTTGATGAGCCTTTCTACCGGCACT  
TCTTCTTCTCCTTCTTCTTGTCTGATCTCTTGCATCTATCGC  
TGCGGCGGGCGGCGGAGTTTGGCCGTAGGTGGCGCCC  
TCTTCTTCCCATGCGTGTGACCCCGAAGCCCCTCATCGGCTG  
AAGCAGGGCTAGGCTGGCGACAACGCGCTCGGCTAATA  
TGGCCTGCTGCACCTGCGTGAGGGTAGACTGGAAGTCATCC

FIG.10F

ATGTCCACAAAGCGGTGGTATGCGCCCGTGTTGATGGTG  
 TAAGTGCAGTTGGCCATAACGGACCAGTTAACGGTCTGGTG  
 ACCCGGCTGCGAGAGCTCGGTGTACCTGAGACGCGAGTA  
 AGCCCTCGAGTCAAATACGTAGTCGTTGCAAGTCCGCACCA  
 GGTACTGGTATCCCACCAAAAAGTGCGGGCGGCGGCTGGC  
 GGTAGAGGGGGCCAGCGTAGGGTGGCCGGGGGCTCCGGGGG  
 CGAGATCTTCCAACATAAGGCGATGATAATCCGTAGATGTAC  
 CTGGACATCCAGGTGATGCCCGGCGGCGGTGGTGGAGGCGC  
 GCGGAAAGTCGCGGACGCGGTTCCAGATGTTGCGCAGCGG  
 CAAAAAGTGCTCCATGGTCGGGACGCTCTGGCCGGTCAGGC  
 GCGCGCAATCGTTGACGCTCTACCGTGCAAAAGGAGAGC  
 CTGTAAGCGGGCACTCTTCCGTGGTCTGGTGGATAAATTGCG  
 AAGGGTATCATGGCGGACGACCGGGGTTTCGAGCCCCGT  
 ATCCGGCCGTCCGCCGTGATCCATGCGGTTACCGCCCGCGT  
 GTCGAACCCAGGTGTGCGACGTCAGACAACGGGGGAGTG  
 CTCCTTTTGGCTTTCCTTCCAGGCGCGGCGGCTGCTGCGCTAG  
 CTTTTTTGGCCACTGGCCGCGCGCAGCGTAAGCGGTTA  
 GGCTGGAAAGCGAAAGCATTCCGTGGCTCGCTCCCTGTAGC  
 CGGAGGGTTATTTTCCAAGGGTTGAGTCGCGGGGACCCCC  
 GGTTTCGAGTCTCGGACCGGCCGGACTGCGGGCGAACGGGGG  
 TTTGCCTCCCCGTCATGCAAGACCCCGCTTGCAAATTCCT  
 CCGGAAACAGGGACGAGCCCCCTTTTTTGTCTTTTCCCAGATGC  
 ATCCGGTGCTGCGGCAGATGCGCCCCCCTCCTCAGCAG  
 CGGCAAGAGCAAGAGCAGCGGCAGACATGCAGGGCACCT  
 CCCCTCCTCCTACCGCGTCAGGAGGGGGCGACATCCGCGGT  
 TGACGCGGCAGCAGATGGTGATTACGAACCCCCGCGGGCGCC  
 GGGCCCGGCACTACCTGGACTTGGAGGAGGGGCGAGGGCC  
 TGGCGCGGCTAGGAGCGCCCTCTCCTGAGCGGTACCCAAGG  
 GTGCAGCTGAAGCGTGATACGCGTGAGGCGTACGTGCCG  
 AGGCAGAACCTGTTTCGCGACCGCGAGGGAGAGGAGCCCG  
 AGGAGATGCGGGATCGAAAGTTCCACGCAGGGGCGCGAGCT  
 GCGGCATGGCCTGAATCGCGAGCGGTTGCTGCGCGAGGAT  
 GACTTTGAGCCCGACGCGCGAACCGGGATTAGTCCCGCGC  
 GCGCACACGTGGCGGCGCCGACCTGGTAACCGCATACGA  
 GCAGACGGTGAACCAGGAGATTAACTTTTCAAAAAGCTTT  
 AACAAACCACGTGCGTACGCTTGTGGCGCGCGAGGAGGTGG  
 CTATAGGACTGATGCATCTGTGGGACTTTGATTGCGCGCT  
 GGAGCAAAACCCAAATAGCAAGCCGCTCATGGCGCAGCTGT  
 TCCTTATAGTGCAGCACAGCAGGGACAACGAGGCATTCA  
 GGGATGCGCTGCTAAACATAGTAGAGCCCGAGGGCCGCTG  
 GCTGCTCGATTTGATAAACATCCTGCAGAGCATAGTGGTG  
 CAGGAGCGCAGCTTGAGCCTGGCTGACAAGGTGGCCGCCAT  
 CAACTATTCCATGCTTAGCCTGGGCAAGTTTTTACGCCCG  
 CAAGATATACCATACCCCTTACGTTCCCATAGACAAGGAGGT  
 AAAGATCGAGGGGTTCTACATGCGCATGGCGCTGAAGG  
 TGCTTACCTTGAGCGACGACCTGGGCGTTTTATCGCAACGAG

FIG.10G

CGCATCCACAAGGCCGTGAGCGTGAGCCGGCGGCGCGAG  
CTCAGCGACCGCGAGCTGATGCACAGCCTGCAAAGGGCCCT  
GGCTGGCACGGGCAGCGGCGATAGAGAGGCCGAGTCCTA  
CTTTGACGCGGGGCGCTGACCTGCGCTGGGCCCCAAGCCGAC  
GCGCCCTGGAGGCAGCTGGGGCCGGACCTGGGCTGGCGG  
TGGCACCCGCGCGCGCTGGCAACGTCGGCGGCGTGAGGA  
ATATGACGAGGACGATGAGTACGAGCCAGAGGACGGCGAG  
TACTAAGCGGTGATGTTTCTGATCAGATGATGCAAGACGCAA  
CGGACCCGGCGGTGCGGGCGGCGCTGCAGAGCCAGCCG  
TCCGGCCTTAACTCCACGGACGACTGGCGCCAGGTCATGGA  
CCGCATCATGTCGCTGACTGCGCGCAATCCTGACGCGTT  
CCGGCAGCAGCCGCGAGGCCAACC GGCTCTCCGCAATTCTGG  
AAGCGGTGGTCCCGGCGCGCGCAAACCCACGCACGAGA  
AGGTGCTGGCGATCGTAAACGCGCTGGCCGAAAACAGGGC  
CATCCGGCCCGACGAGGCCGGCCTGGTCTACGACGCGCTG  
CTTCAGCGCGTGGCTCGTTACAACAGCGGCAACGTGCAGAC  
CAACCTGGACCGGGCTGGTGGGGGATGTGCGCGAGGCCGT  
GGCGCAGCGTGAGCGCGCGCAGCAGAGGGCAACCTGGGC  
TCCATGGTTGCACTAAACGCCTTCCTGAGTACACAGCCCG  
CCAACGTGCCGCGGGGACAGGAGGACTACACCAACTTTGTG  
AGCGCACTGCGGCTAATGGTGACTGAGACACCGCAAAGT  
GAGGTGTACCAGTCTGGGCCAGACTATTTTTTCCAGACCAGT  
AGACAAGGCCTGCAGACCGTAAACCTGAGCCAGGCTTT  
CAAAAACCTTGCAGGGGGCTGTGGGGGGTGCGGGCTCCCACA  
GGCGACCGCGCGACCGTGTCTAGCTTGCTGACGCCCAACT  
CGCGCCTGTTGCTGCTGCTAATAGCGCCCTTCACGGACAGT  
GGCAGCGTGTCCCGGGACACATACCTAGGTCACTTGCTG  
ACACTGTACCGCGAGGCCATAGGTGAGGCGCATGTGGACGA  
GCATACTTTCCAGGCGCTTACAAGTGTCAGCCGCGCGCT  
GGGGCAGGAGGACACGGGCAGCCTGGAGGCAACCCTAAAC  
TACCTGCTGACCAACCGGCGGCAGAAAGATCCCCTCGTTGC  
ACAGTTTAAACAGCGAGGAGGAGCGCATTTTTGCGCTACGTG  
CAGCAGAGCGTGAGCCTTAACCTGATGCGCGACGGGGTA  
ACGCCCAGCGTGGCGCTGGACATGACCGCGCGCAACATGG  
AACCGGGCATGTATGCCTCAAACCGGCCGTTTATCAACCG  
CCTAATGGACTACTTG CATCGCGCGGCCGCGCGTGAACCCCG  
AGTATTTACCAATGCCATCTTGAACCCGCACTGGCTAC  
CGCCCCCTGGTTTCTACACCGGGGGATTTCGAGGTGCCCGAG  
GGTAACGATGGATTCTCTGGGACGACATAGACGACAGC  
GTGTTTTCCCGCAACCGCAGACCCTGCTAGAGTTGCAACAG  
CGCGAGCAGGCAGAGGCGGCGCTGCGAAAGGAAAGCTT  
CCGCAGGCCAAGCAGCTTGTCCGATCTAGGCGCTGCGGGCC  
CGCGGTGAGATGCTAGTAGCCCATTTCCAAGCTTGATAG  
GGTCTCTTACCAGCACTCGCACCAACCGCCCGCGCCTGCTG  
GGCGAGGAGGAGTACCTAAACAACCTCGCTGCTGCAGCCG  
CAGCGCGAAAAAACCTGCCTCCGGCATTTCCTCAACAACGG

FIG.10H



GATAGAGAGCCTAGTGGACAAGATGAGTAGATGGAAGAC  
GTACGCGCAGGAGCACAGGGACGTGCCAGGCCCGCGCCCG  
CCCACCCGTCGTCAAAGGCACGACCGTCAGCGGGGTCTGG  
TGTGGGAGGACGATGACTCGGCAGACGACAGCAGCGTCCT  
GGATTTGGGAGGGAGTGGCAACCCGTTTGCGCACCTTCGC  
CCCAGGCTGGGGAGAATGTTTTAAAAAAAAAAAAAGCATGAT  
GCAAAATAAAAAAACTCACCAAGGCCATGGCACCGAGCGT  
TGGTTTTCTTGTATTCCCCTTAGTATGCGGCGCGCGGCGATG  
TATGAGGAAGGTCCTCCTCCCTCCTACGAGAGTGTGGT  
GAGCGCGGCGCCAGTGGCGGCGGCGCTGGGTTCTCCCTTC  
GATGCTCCCCTGGACCCGCGGTTTGTGCCTCCGCGGTACC  
TGCGGCCTACCGGGGGGAGAAACAGCATCCGTTACTCTGAG  
TTGGCACCCCTATTCGACACCACCCGTGTGTACCTGGTG  
GACAACAAGTCAACGGATGTGGCATCCCTGAACTACCAGAA  
CGACCACAGCAACTTTCTGACCACGGTCATTCAAAACAA  
TGACTACAGCCCGGGGGAGGCAAGCACACAGACCATCAATC  
TTGACGACCGGTCGCACTGGGGCGGCGACCTGAAAACCA  
TCCTGCATACCAACATGCCAAATGTGAACGAGTTCATGTTTA  
CCAATAAGTTTTAAGGCGCGGGTGATGGTGTGCGCGCTTG  
CCTACTAAGGACAATCAGGTGGAGCTGAAATACGAGTGGGT  
GGAGTTCACGCTGCCCCGAGGGCAACTACTCCGAGACCAT  
GACCATAGACCTTATGAACAACGCGATCGTGGAGCACTACTT  
GAAAGTGGGCAGACAGAACGGGGTTCTGGAAAGCGACA  
TCGGGGGTAAAGTTTGACACCCGCAACTTCAGACTGGGGTTT  
GACCCCGTCACTGGTCTTGTCATGCCTGGGGTATATACA  
AACGAAGCCTTCCATCCAGACATCATTTTGCTGCCAGGATGC  
GGGGTGGACTTCACCCACAGCCGCCTGAGCAACTTGTT  
GGGCATCCGCAAGCGGCAACCCTTCCAGGAGGGCTTTAGGA  
TCACCTACGATGATCTGGAGGGTGGTAACATTCCCGCAC  
TGTTGGATGTGGACGCCTACCAGGCGAGCTTGAAAGATGAC  
ACCGAACAGGGCGGGGGTGGCGCAGGCGGCAGCAACAGC  
AGTGGCAGCGGCGCGGAAGAGAACTCCAACGCGGCAGCCG  
CGGCAATGCAGCCGGTGGAGGACATGAACGATCATGCCAT  
TCGCGGCGACACCTTTGCCACACGGGCTGAGGAGAAGCGC  
GCTGAGGCCGAAGCAGCGGCCGAAGCTGCCGCCCCCGCTG  
CGCAACCCGAGGTCGAGAAGCCTCAGAAGAAACCGGTGATC  
AAACCCCTGACAGAGGACAGCAAGAAACGCAGTTACAAC  
CTAATAAGCAATGACAGCACCTTCACCCAGTACCGCAGCTGG  
TACCTTGCATACAACCTACGGCGACCCTCAGACCGGAAT  
CCGCTCATGGACCCTGCTTTGCACTCCTGACGTAACCTGCGG  
CTCGGAGCAGGTCTACTGGTCGTTGCCAGACATGATGC  
AAGACCCCGTGACCTTCCGCTCCACGCGCCAGATCAGCAAC  
TTTCCGGTGGTGGGCGCCGAGCTGTTGCCCGTGCACTCC  
AAGAGCTTCTACAACGACCAGGCCGTCTACTCCCAACTCATC  
CGCCAGTTTACCTCTCTGACCCACGTGTTCAATCGCTT  
TCCCGAGAACCAGATTTTGGCGCGCCCGCCAGCCCCACCA

FIG.10I

TCACCACCGTCAGTGAAAACGTTCTGCTCTCACAGATC  
ACGGGACGCTACCGCTGCGCAACAGCATCGGAGGAGTCCA  
GCGAGTGACCATTACTGACGCCAGACGCCGCACCTGCCCC  
TACGTTTACAAGGCCCTGGGCATAGTCTCGCCGCGCGTCCTA  
TCGAGCCGCACTTTTTTGTAGCAAGCATGTCCATCCTTAT  
ATCGCCCAGCAATAACACAGGCTGGGGCCTGCGCTTCCCAA  
GCAAGATGTTTGGCGGGGGCCAAGAAGCGCTCCGACCAAC  
ACCCAGTGCGCGTGCGCGGGCACTACCGCGCGCCCTGGGG  
CGCGCACAAACGCGGGCCGCACTGGGCGCACCAACGTCGAT  
GACGCCATCGACGCGGTGGTGGAGGAGGCGCGCAACTACA  
CGCCCACGCCGCCACCAAGTGTCCACAGTGGACGCGGGCCAT  
TCAGACCGTGGTGCGCGGAGCCCGGCGCTATGCTAAAATGA  
AGAGACGGCGGAGGCGCGTAGCACGTGCGCACCGCGCGCC  
GACCCGGCACTGCCGCCCAACGCGCGGGCGGGCCCTGCT  
TAACCGCGCACGTGCGCACCGGCCGACGGGCGGGCCATGCGG  
GCCGCTGCAAGGCTGGCCGCGGGTATTGTCACTGTGCCCCC  
CAGGTCCAGGCGACGAGCGGCCGCCGACGAGCCGCGGGC  
CATTAGTGCTATGACTCAGGGTCGACAGGGGCAACGTGTATT  
GGGTGCGCGACTCGGTTAGCGGCCTGCGCGTGCCCGTGC  
GCACCCGCCCCCCGCGCAACTAGATTGCAAGAAAAAACTAC  
TTAGACTCGTACTGTTGTATGTATCCAGCGGGCGGGCG  
CGCAACGAAGCTATGTCCAAGCGCAAAATCAAAGAAGAGAT  
GCTCCAGGTCATCGCGCCGGAGATCTATGGCCCCCCGAA  
GAAGGAAGAGCAGGATTACAAGCCCCGAAAGCTAAAGCGG  
GTCAAAAAGAAAAAGAAAGATGATGATGAACTTGACG  
ACGAGGTGGAAGTGTGTCACGCTACCGCGCCCAGGCGACG  
GGTACAGTGGAAAGGTGACGCGTAAAACGTGTTTTGCGA  
CCCGGCACCAACGCTAGTCTTTACGCCCGGTGAGCGCTCCAC  
CCGCACCTACAAGCGCGTGTATGATGAGGTGTACGGCGA  
CGAGGACCTGCTTGAGCAGGCCAACGAGCGCCTCGGGGAG  
TTTGCTACGGAAAGCGGCATAAGGACATGCTGGCGTTGC  
CGCTGGACGAGGGCAACCCAACACCTAGCCTAAAGCCCGTA  
ACACTGCAGCAGGTGCTGCCCGCGCTTGACCGTCCGAA  
GAAAAGCGCGGCCTAAAGCGCGAGTCTGTTGACTTGGCACC  
CACCGTGCAGCTGATGGTACCCAAGCGCCAGCGACTGGA  
AGATGTCTTGGAATAATGACCGTGGAACCTGGGCTGGAGC  
CCGAGGTCCGCGTGCGGCCAATCAAGCAGGTGGCGCCGG  
GACTGGGCGTGACAGACCGTGGACGTTTCAGATACCCACTACC  
AGTAGCACCAAGTATTGCCACCGCCACAGAGGGCATGGAG  
ACACAAACGTCCCCGGTTGCCTCAGCGGTGGCGGATGCCGC  
GGTGCAGGCGGTGCTCCGGCCGCGTCCAAGACCTCTAC  
GGAGGTGCAAACGGACCCGTGGATGTTTCGCGTTTCAGCCC  
CCCGGCGCCCGCGCGGTTTCGAGGAAGTACGGCGCCGCCA  
GCGCGCTACTGCCCGAATATGCCCTACATCCTTCCATTGCGC  
CTACCCCGGGCTATCGTGGCTACACCTACCGCCCCAGA  
AGACGAGCAACTACCCGACGCCGAACCACTGGAACCCG

FIG.10J

CCGCCGCCGTCGCCGTCGCCAGCCCGTGCTGGCCCCGAT  
TTCCGTGCGCAGGGTGGCTCGCGAAGGAGGCAGGACCCTG  
GTGCTGCCAACAGCGCGCTACCACCCCAGCATCGTTTAAA  
AGCCGGTCTTTGTGGTTCTTGCAGATATGGCCCTCACCTGCC  
GCCTCCGTTTCCCGGTGCCGGGATTCCGAGGAAGAATG  
CACCGTAGGAGGGGCATGGCCGGCCACGGCCTGACGGGCG  
GCATGCGTCGTGCGCACCCGGCGGGCGGCGCGCGTCGCA  
CCGTGCGCATGCGCGGGCGGTATCCTGCCCTCCTTATTCCACT  
GATCGCCGCGGCGATTGGCGCCGTGCCCGGAATTGCAT  
CCGTGGCCTTGCAGGCGCAGAGACACTGATTAAAAACAAGT  
TGCATGTGGGAAAAAATCAAAATAAAAAGTCTGGACTCTCA  
CGCTCGCTTGGTCCTGTAACCTATTTTGTAGAATGGAAGACAT  
CAACTTTGCGTCTCTGGCCCCGCGACACGGCTCGCGCC  
CGTTCATGGGAAACTGGCAAGATATCGGCACCAGCAATATG  
AGCGGTGGCGCCTTCAGCTGGGGCTCGCTGTGGAGCGGC  
ATTAAAAATTTCCGGTTCACCGTTAAGAACTATGGCAGCAAG  
GCCTGGAACAGCAGCACAGGCCAGATGCTGAGGGATAA  
GTTGAAAGAGCAAAATTTCCAACAAAAGGTGGTAGATGGCC  
TGGCCTCTGGCATTAGCGGGGTGGTGGACCTGGCCAACC  
AGGCAGTGCAAAATAAGATTAACAGTAAGCTTGATCCCCGCC  
CTCCCGTAGAGGAGCCTCCACCGGCCGTGGAGACAGTG  
TCTCCAGCGGGGCGTGCGGAAAAGCGTCCGCGCCCCGACA  
GGGAAGAACTCTGGTGACGCAAATAGACGAGCCTCCCTC  
GTACGAGGAGGCACTAAAGCAAGGCCTGCCACCACCCGTC  
CCATCGCGCCCATGGCTACCGGAGTGCTGGGCCAGCACA  
CACCCGTAAACGCTGGACCTGCCTCCCCCGCCGACACCCAG  
CAGAAACCTGTGCTGCCAGGCCCGACCGCCGTTGTTGTA  
ACCCGTCCTAGCCGCGCGTCCCTGCGCCGCGCCGCCAGCGG  
TCCGCGATCGTTGCGGGCCCGTAGCCAGTGGCAACTGGCA  
AAGCACACTGAACAGCATCGTGGGTCTGGGGGTGCAATCCC  
TGAAGCGCCGACGATGCTTCTGAATAGCTAACGTGTCGT  
ATGTGTGTCATGTATGCGTCCATGTCGCCGCCAGAGGAGCT  
GCTGAGCCGCCGCGCGCCCGCTTTCCAAGATGGCTACCC  
CTTCGATGATGCCGCAGTGGTCTTACATGCACATCTCGGGCC  
AGGACGCCTCGGAGTACCTGAGCCCCGGGCTGGTGCAG  
TTTGCCCGCGCCACCGAGACGTACTTCAGCCTGAATAACAAG  
TTTAGAAACCCACGGTGGCGCCTACGCACGACGTGAC  
CACAGACCGGTCCCAGCGTTTGACGCTGCGGTTTCATCCCTGT  
GGACCGTGAGGATACTGCGTACTCGTACAAGGCGCGGT  
TCACCCTAGCTGTGGGTGATAACCGTGTGCTGGACATGGCTT  
CCACGTACTTTGACATCCGCGGGCGTGCTGGACAGGGGC  
CCTACTTTTAAGCCCTACTCTGGCACTGCCTACAACGCCCTG  
GCTCCCAAGGGTGCCCCAAATCCTTGCGAATGGGATGA  
AGCTGCTACTGCTCTTGAAATAAACCTAGAAGAAGAGGACG  
ATGACAACGAAGACGAAGTAGACGAGCAAGCTGAGCAGC  
AAAAAACTCACGTATTTGGGCAGGCGCCTTATTCTGGTATAA

FIG.10K



ATATTACAAAGGAGGGTATTCAAATAGGTGTCGAAGGT  
CAAACACCTAAATATGCCGATAAAACATTTCAACCTGAACCT  
CAAATAGGAGAATCTCAGTGGTACGAAACTGAAATTAA  
TCATGCAGCTGGGAGAGTCCTTAAAAAGACTACCCCAATGAA  
ACCATGTTACGGTTCATATGCAAAACCCACAAATGAAA  
ATGGAGGGCAAGGCATTCTTGTAAGCAACAAAATGGAAAG  
CTAGCCCGTCAAGTGGAAATGCAATTTTTCTCAACTACT  
GAGGCGACCGCAGGCAATGGTGATAACTTGACTCCTAAAGT  
GGTATTGTACAGTGAAGATGTAGATATAGAAACCCGAGA  
CACTCATATTTCTTACATGCCCACTATTAAGGAAGGTAACCTCA  
CGAGAACTAATGGGCCAACAAATCTATGCCCAACAGGC  
CTAATTACATTGCTTTTAGGGACAATTTTATTGGTCTAATGTA  
TTACAACAGCACGGGTAAATATGGGTGTTCTGGCGGGC  
CAAGCATCGCAGTTGAATGCTGTTGTAGATTTGCAAGACAGA  
AACACAGAGCTTTCATACCAGCTTTTGCTTGATTCCAT  
TGGTGATAGAACCAGGTACTTTTCTATGTGGAATCAGGCTGT  
TGACAGCTATGATCCAGATGTTAGAATTATTGAAAATC  
ATGGAACCTGAAGATGAACTTCCAAATTACTGCTTTCCACTGG  
GAGGTGTATTAATACAGAGACTCTTACCAAGGTAAAA  
CCTAAACAGGTCAGGAAAATGGATGGGAAAAAGATGCTAC  
AGAATTTTCAGATAAAAAATGAAATAAGAGTTGGAAATAA  
TTTTGCCATGGAAATCAATCTAAATGCCAACCTGTGGAGAAA  
TTTCTGTACTCCAACATACGCGTGTATTTGCCCGACA  
AGCTAAAGTACAGTCCTTCCAACGTAAAAATTTCTGATAACC  
CAAACACCTACGACTACATGAACAAGCGAGTGGTGGCT  
CCCGGGTTAGTGGACTGCTACATTAACCTTGGAGCACGCTG  
GTCCCTTGACTATATGGACAACGTCAACCCATTTAACCA  
CCACCGCAATGCTGGCCTGCGCTACCGCTCAATGTTGCTGG  
GCAATGGTCGCTATGTGCCCTTCCACATCCAGGTGCCTC  
AGAAGTTCTTTGCCATTAAAAACCTCCTTCTCCTGCCGGGCT  
CATACACCTACGAGTGGAACCTTCAGGAAGGATGTTAAC  
ATGGTTCTGCAGAGCTCCCTAGGAAATGACCTAAGGGTTGA  
CGGAGCCAGCATTAAAGTTTGATAGCATTTGCCTTTACGC  
CACCTTCTTCCCCATGGCCCACAACACCGCCTCCACGCTTGA  
GGCCATGCTTAGAAACGACACCAACGACCAGTCCTTTA  
ACGACTATCTCTCCGCCGCCAACATGCTCTACCCTATACCCG  
CCAACGCTACCAACGTGCCCATATCCATCCCCTCCCGC  
AACTGGGCGGCTTTCCGCGGCTGGGCCTTCACGCGCCTTAA  
GACTAAGGAAACCCCATCACTGGGCTCGGGCTACGACCC  
TTATTACACCTACTCTGGCTCTATACCCTACCTAGATGGAACC  
TTTTACCTCAACCACACCTTTAAGAAGGTGGCCATTA  
CCTTTGACTCTTCTGTCAGCTGGCCTGGCAATGACCGCCTGC  
TTACCCCCAACGAGTTTGAAATTAAGCGCTCAGTTGAC  
GGGGAGGGTTACAACGTTGCCCAGTGTAACATGACCAAAGA  
CTGGTTCCTGGTACAAATGCTAGCTAACTACAACATTGG  
CTACCAGGGCTTCTATATCCCAGAGAGCTACAAGGACCGCAT

FIG.10L

GTACTCCTTCTTTAGAAACTTCCAGCCCATGAGCCGTC  
AGGTGGTGGATGATACTAAATACAAGGGACTACCAACAGGTG  
GGCATCCTACACCAACACAACAACTCTGGATTTGTTGGC  
TACCTTGCCCCCACCATGCGCGAAGGACAGGCCTACCCTGC  
TAACTTCCCCTATCCGCTTATAGGCAAGACCGCAGTTGA  
CAGCATTACCCAGAAAAAGTTTCTTTGCGATCGCACCCCTTTG  
GCGCATCCCATTTCTCCAGTAACTTTATGTCCATGGGCG  
CACTCACAGACCTGGGGCCAAAACCTTCTCTACGCCAACTCCG  
CCCACGCGCTAGACATGACTTTTGGAGGTGGATCCCATG  
GACGAGCCCAACCTTCTTTATGTTTTGTTTGAAGTCTTTGACG  
TGGTCCGTGTGCACCGGCCGACCGCGGCGTCATCGA  
AACCGTGTACCTGCGCACGCCCTTCTCGGCCGGCAACTCCA  
CAACATAAAGAAGCAAGCAACATCAACAACAGCTGCCGC  
CATGGGCTCCAGTGAGCAGGAACTGAAAGCCATTGTCAAAG  
ATCTTGGTTGTGGGCCATATTTTTTTGGGCACCTATGACA  
AGCGCTTTCCAGGCTTTGTTTCTCCACACAAGCTCGCCTGCG  
CCATAGTCAATACGGCCGGTTCGCGAGACTGGGGGGCGTA  
CACTGGATGGCCTTTGCCTGGAACCCGCACTCAAAAACATGC  
TACCTCTTTGAGCCCTTTGGCTTTTCTGACCAGCGACT  
CAAGCAGGTTTACCAGTTTGAGTACGAGTCACTCCTGCGCCG  
TAGCGCCATTGCTTCTTCCCCGACCGCTGTATAACGC  
TGGAAAAGTCCACCCAAAGCGTACAGGGGGCCCAACTCGGCC  
GCCTGTGGACTATTCTGCTGCATGTTTCTCCACGCCTTT  
GCCAACTGGCCCCAAACTCCCATGGATCACAACCCCAACATG  
AACCTTATTACCGGGGTACCCAACTCCATGCTCAACAG  
TCCCCAGGTACAGCCCAACCTGCGTCGCAACCAGGAACAGC  
TCTACAGCTTCCTGGAGCGCCACTCGCCCTACTTCCGCA  
GCCACAGTGCGCAGATTAGGAGCGCCACTTCTTTTTGTCACT  
TGAAAAACATGTAAAAATAATGTACTAGAGACACTTTC  
AATAAAGGCAAATGCTTTTTATTTGTACACTCTCGGGTGATTAT  
TTACCCCCACCCTTGCCGTCTGCGCCGTTTAAAAATC  
AAAGGGGTTCTGCCGCGCATCGCTATGCGCCACTGGCAGGG  
ACACGTTGCGATACTGGTGTTTAGTGCTCCACTTAAACT  
CAGGCACAACCATCCGCGGCAGCTCGGTGAAGTTTTCACTC  
CACAGGCTGCGCACCATCACCAACGCGTTTAGCAGGTCG  
GGCGCCGATATCTTGAAGTCGCAGTTGGGGCCTCCGCCCTG  
CGCGCGCGAGTTGCGATACACAGGGTTGCAGCACTGGAA  
CACTATCAGCGCCGGGTGGTGCACGCTGGCCAGCACGCTCT  
TGTCGGAGATCAGATCCGCGTCCAGGTCCTCCGCGTTGC  
TCAGGGCGAACGGAGTCAACTTTGGTAGCTGCCTTCCCAA  
AAGGGCGCGTGCCCAAGGCTTTGAGTTGCACTCGCACCGT  
AGTGGCATCAAAAGGTGACCGTGCCCGGTCTGGGCGTTAGG  
ATACAGCGCCTGCATAAAAGCCTTGATCTGCTTAAAAGC  
CACCTGAGCCTTTGCGCCTTCAGAGAAGAACATGCCGCAAG  
ACTTGCCGGAAAACCTGATTGGCCGGACAGGCCGCGTCGT  
GCACGCAGCACCTTGCGTCGGTGTTGGAGATCTGCACCACA

FIG.10M

TTTCGGCCCCACCGGTTCTTCACGATCTTGGCCTTGCTA  
 GACTGCTCCTTCAGCGCGCGCTGCCCGTTTTTCGCTCGTCACA  
 TCCATTTCAATCACGTGCTCCTTATTTATCATAATGCT  
 TCCGTGTAGACACTTAAGCTCGCCTTCGATCTCAGCGCAGCG  
 CTGCAGCCACAACGCGCAGCCCGTGGGCTCGTGATGCT  
 TGTAGGTCACCTCTGCAAACGACTGCAGGTACGCCTGCAGG  
 AATCGCCCCATCATCGTCACAAAGGTCTTGTTGCTGGTG  
 AAGGTCAGCTGCAACCCGCGGTGCTCCTCGTTTCAGCCAGGT  
 CTTGCATACGGCCGCGCAGAGCTTCCACTTGGTCAGGCAG  
 TAGTTTGAAGTTCGCCTTTAGATCGTTATCCACGTGGTACTTG  
 TCCATCAGCGCGCGCGCAGCCTCCATGCCCTTCTCCC  
 ACGCAGACACGATCGGCACACTCAGCGGGTTCATCACCGTA  
 ATTTCACTTTTCGCTTCGCTGGGCTCTTCCTCTTCCTCT  
 TGCGTCCGCATACCACGCGCCACTGGGTGCTCTTCATTCAGC  
 CGCCGCACTGTGCGCTTACCTCCTTTGCCATGCTTGAT  
 TAGCACCGGTGGGTTGCTGAAACCCACCATTTGTAGCGCCA  
 CATCTTCTCTTTCTTCCTCGCTGTCCACGATTACCTCTG  
 GTGATGGCGGGCGCTCGGGCTTGGGAGAAGGGCGCTTCTTT  
 TTCTTCTTGGGCGCAATGGCCAAATCCGCCGCCGAGGTC  
 GATGGCCGCGGGCTGGGTGTGCGCGGCACCAGCGCGTCTT  
 GTGATGAGTCTTCCTCGTCCTCGGACTCGATACGCCGCCT  
 CATCCGCTTTTTTTGGGGGCGCCCGGGGAGGCGGCGGCGAC  
 GGGGACGGGGAACGACACGTCTCCATGGTTGGGGGACGTC  
 GCGCCGCACCGCGTCCGCGCTCGGGGGTGGTTTCGCGCTG  
 CTCCTCTTCCCGACTGGCCATTTCTTCTCCTATAGGCAG  
 AAAAAGATCATGGAGTCAGTCGAGAAGAAGGACAGCCTAAC  
 CGCCCCCTCTGAGTTCGCCACCACCGCCTCCACCGATGC  
 CGCCAACGCGCCTACCACCTTCCCCGTCGAGGACCCCCGC  
 TTGAGGAGGAGGAAGTGATTATCGAGCAGGACCCAGGTT  
 TTGTTAAGCGAAGACGACGAGGACCGCTCAGTACCAACAGAG  
 GATAAAAAGCAAGACCAGGACAACGCAGAGGCAAACGAG  
 GAACAAGTCGGGCGGGGGGACGAAAGGCATGGCGACTACC  
 TAGATGTGGGAGACGACGTGCTGTTGAAGCATCTGCAGCG  
 CCAGTGCGCCATTATCTGCGACGCGTTGCAAGAGCGCAGCG  
 ATGCTGCCCTCGCCATAGCGGATGTCAGCCTTGCCCTACG  
 AACGCCACCTATTCTCACCGCGCGTACCCCCCAAACGCCAAG  
 AAACGGCACATGCGAGCCCAACCCGCGCCTCAACTTC  
 TACCCGTATTTGCCGTGCCAGCGGTGCTTGCCACCTATCAC  
 ATCTTTTTTCCAAAACCTGCAAGATACCCCTATCCTGCCG  
 TGCCAACCGCAGCCGAGAGACAAGCAGCTGGCCTTGCGG  
 CAGGGCGCTGTCATACCTGATATCGCCTCGCTCAACGAAG  
 TGCCAAAATCTTTGAGGGTCTTGACGCGACGAGAAGCGC  
 GCGGCAAACGCTCTGCAACAGGAAAACAGCGAAAATGAA  
 AGTCACTGGAGTGTTGGTGGAACTCGAGGGTGACAACGC  
 GCGCCTAGCCGTACTAAAACGCAGCATCGAGGTCACCCA  
 CTTTGCCCTACCCGGCACTTAACCTACCCCCCAAGGTCATGAG

FIG.10N

CACAGTCATGAGTGAGCTGATCGTGCGCCGTGCGCAGC  
CCCTGGAGAGGGATGCAAATTTGCAAGAACAAACAGAGGAG  
GGCCTACCCGCAGTTGGCGACGAGCAGCTAGCGCGCTGG  
CTTCAAACGCGCGAGCCTGCCGACTTGGAGGAGCGACGACGCAA  
ACTAATGATGGCCGCAGTGCTCGTTACCGTGGAGCTTGA  
GTGCTGCAGCGGTTCTTTGCTGACCCGGAGATGCAGCGCA  
AGCTAGAGGAAACATTGCACTACACCTTTTCGACAGGGCT  
ACGTACGCCAGGCCTGCAAGATCTCCAACGTGGAGCTCTGC  
AACCTGGTCTCCTACCTTGGAATTTTGCACGAAAACCGC  
CTTGGGCAAAACGTGCTTCATTCCACGCTCAAGGGCGAGGC  
GCGCCGCGACTACGTCCGCGACTGCGTTTACTTATTTCT  
ATGCTACACCTGGCAGACGGCCATGGGCGTTTGGCAGT  
GCTTGGAGGAGTGCAACCTTCAAGGAGCTGCAGAACTGC  
TAAAGCAAAACTTGAAGGACCTATGGACGGCCTTCAACGAG  
CGCTCCGTGGCCGCGCACCTGGCGGACATCATTTTCCCC  
GAACGCCTGCTTAAAACCCTGCAACAGGGTCTGCCAGACTTC  
ACCAGTCAAAGCATGTTGCAGAACTTTAGGAACTTTAT  
CCTAGAGCGCTCAGGAATCTTGCCCGCCACCTGCTGTGCACT  
TCCTAGCGACTTTGTGCCCATTAAGTACCGCGAATGCC  
CTCCGCCGCTTTGGGGCCACTGCTACCTTCTGCAGCTAGCCA  
ACTACCTTGCTTACCACTCTGACATAATGGAAGACGTG  
AGCGGTGACGGTCTACTGGAGTGTCACTGTCTGCTGCAACCT  
ATGVAVVVVGAVVGVTVVVTGGTTTGVAATTVGAVAGVT  
GCTTAACGAAAGTCAAATTATCGGTACCTTTGAGCTGCAGGG  
TCCCTCGCCTGACGAAAAGTCCGCGGCTCCGGGGTTCA  
AACTCACTCCGGGGCTGTGGACGTCGGCTTACCTTCGCAAAT  
TTGTACCTGAGGACTACCACGCCACGAGATTAGGTTC  
TACGAAGACCAATCCCGCCCGCCAAATGCGGAGCTTACCGC  
CTGCGTCATTACCCAGGGCCACATTCTTGGCCAATTGCA  
AGCCATCAACAAAGCCCGCCAAGAGTTTCTGCTACGAAAGG  
GACGGGGGGTTTACTTTGGACCCCCAGTCCGGGCGAGGAGC  
TCAACCCAATCCCCCGCCGCGCAGCCCTATCAGCAGCAG  
CCGCGGGGCCCTTGCTTCCAGGATGGCACCCAAAAAGAA  
GCTGCAGCTGCCGCGCCACCCACGGACGAGGAGGAATACT  
GGGACAGTCAGGCAGAGGAGGTTTTGGACGAGGAGGAGG  
AGGACATGATGGAAGACTGGGAGAGCCTAGACGAGGAAGC  
TTCCGAGGTCGAAGAGGTGTCAGACGAAACACCGTCACCC  
TCGGTCGCATTCCCCTCGCCGGCGCCCCAGAAATCGGCAAC  
CGGTTCCAGCATGGCTACAACCTCCGCTCCTCAGGCGCC  
GCCGGCACTGCCCGTTTCGCCGACCCAACCGTAGATGGGACA  
CCACTGGAACCAGGGCCGGTAAGTCCAAGCAGCCGCCGC  
CGTTAGCCCAAGAGCAACAACAGCGCCAAGCTACCGCTCA  
TGGCGCGGGCACAAGAACGCCATAGTTGCTTGCCTTGCAA  
GACTGTGGGGGCAACATCTCCTTCGCCCGCCGCTTTCTTCTC  
TACCATCACGGCGTGGCCTTCCCCCGTAACATCCTGCA  
TTACTACCGTCATCTCTACAGCCCATACTGCACCGGCGGCAG

FIG.100



CGGCAGCGGCAGCAACAGCAGCGGCCACACAGAAGCAA  
 AGGCGACCGGATAGCAAGACTCTGACAAAGCCCAAGAAATC  
 CACAGCGGCGGCAGCAGCAGGAGGAGGAGCGCTGCGTCT  
 GGCGCCCAACGAACCCGTATCGACCCGCGAGCTTAGAAACA  
 GGATTTTTTCCCACTCTGTATGCTATATTTCAACAGAGCA  
 GGGGCCAAGAACAAGAGCTGAAAATAAAAAACAGGTCTCTG  
 CGATCCCTCACCCGCGAGCTGCCTGTATCACAAAAGCGAA  
 GATCAGCTTCGGCGCACGCTGGAAGACGCGGAGGCTCTCTT  
 CAGTAAATACTGCGCGCTGACTCTTAAGGACTAGTTTCG  
 CGCCCTTTCTCAAATTTAAGCGCGAAACTACGTCATCTCCA  
 GCGGCCACACCCGGCGCCAGCACCTGTCGTCAGCGCCA  
 TTATGAGCAAGGAAATTCCACGCCCCTACATGTGGAGTTACC  
 AGCCACAAATGGGACTTGCGGCTGGAGCTGCCCAAGAC  
 TACTCAACCCGAATAAACTACATGAGCGCGGGACCCACAT  
 GATATCCCGGGTCAACGGAATCCGCGCCCAACCGAAACCG  
 AATTCTCTTGGAACAGGCGGCTATTACCACCACACCTCGTAA  
 TAACCTTAATCCCGTAGTTGGCCCGCTGCCCTGGTGT  
 ACCAGGAAAGTCCCGCTCCCACCACTGTGGTACTTCCCAGA  
 GACGCCCAGGCCGAAGTTCAGATGACTAACTCAGGGGCG  
 CAGCTTGCGGGCGGCTTTTCGTCACAGGGTGCGGTGCGCCGG  
 GCAGGGTATAACTCACCTGACAATCAGAGGGGCGAGGTAT  
 TCAGCTCAACGACGAGTCGGTGAGCTCCTCGCTTGGTCTCC  
 GTCCGGACGGGACATTTTCAGATCGGCGGGCGCCGGCCGTC  
 GTTCATTACGCGCTCGTCAGGCAATCCTAACTCTGCAGACCT  
 CGTCCTCTGAGCCGCGCTCTGGAGGCATTGGAACCTCTG  
 CATTTATTGAGGAGTTTGTGCATCGGTCTACTTTAACCCCT  
 TCTCGGGACCTCCCGGCCACTATCCGGATCAATTTAT  
 TCCTAACTTTGACGCGGTAAGGACTCGGCGGACGGCTACG  
 ACTGAATGTTAAGTGGAGAGGCAGAGCAACTGCGCCTGA  
 AACACCTGGTCCACTGTCGCCGCCACAAGTGCTTTGCCCGC  
 GACTCCGGTGAGTTTTTGCTACTTTGAATTGCCCGAGGAT  
 CATATCGAGGGCCCGGCGCACGGCGTCCGGCTTACCGCCCA  
 GGGAGAGCTTGCCCGTAGCCTGATTCGGGAGTTTACCCA  
 GCGCCCCCTGCTAGTTGAGCGGGACAGGGGACCCTGTGTTC  
 TCACTGTGATTTGCAACTGTCCTAACCTTGGAATTACATC  
 AAGATCTTTGTTGCCATCTCTGTGCTGAGTATAATAATACAG  
 AAATTAATAATACTGGGGCTCCTATCGCCATCCTGT  
 AAACGCCACCGTCTTCACCCGCCCAAGCAAACCAAGGCGAA  
 CCTTACCTGGTACTTTTAACATCTCTCCCTCTGTGATTT  
 ACAACAGTTTCAACCCAGACGGAGTGAGTCTACGAGAGAAC  
 CTCTCCGAGCTCAGCTACTCCATCAGAAAAAACACCACC  
 CTCTCCGAGCTCAGCTACTCCATCAGAAAAAACACCACC  
 CTCCTTACCTGCCGGGAACGTACGAGTGCGTCACCGGCCGC  
 TGCACCACACCTACCGCCTGACCGTAAACCAGACTTTTT  
 CCGGACAGACCTCAATAACTCTGTTTACCAGAACAGGAGGT  
 GAGCTTAGAAAACCCTTAGGGTATTAGGCCAAAGGCGCA

FIG.10P

GCTACTGTGGGGTTTATGAACAATTCAAGCAACTCTACGGGC  
TATTCTAATTCAGGTTTCTCTAATCGGGGTTGGGGTTA  
TTCTCTGTCTTGTGATTCTCTTTATTCTTATACTAACGCTTCTC  
TGCCTAAGGCTCGCCGCCTGCTGTGTGCACATTTGC  
ATTTATTGTCAGCTTTTTTAAACGCTGGGGTCGCCACCCAAGA  
TGATTAGGTACATAATCCTAGGTTTACTCACCTTGCG  
TCAGCCCACGGTACCACCCAAAAGGTGGATTTTAAAGGAGCC  
AGCCTGTAATGTTACATTCGCAGCTGAAGCTATGAGTG  
CACCACTCTTATAAAAATGCACCACAGAACATGAAAAGCTGCT

ACTTTTCCATTTTATGAAATGTGCTACATTACCATGTACATGA  
GCAAACAGTATAAGTTGTGGCCCCCACAATAATTGTGT  
GGAAAACACTGGCACTTTCTGCTGCACTGCTATGCTAATTAC  
AGTGCTCGCTTTGGTCTGTACCCTACTCTATATTAAAT  
ACAAAAGCAGGACGCAGCTTTATTGAGGAAAAGAAAATGCCTT  
AATTTACTAAGTTACAAAGCTAATGTCACCACTAACTG  
CTTTACTCGCTGCTTGCAAAACAAATTCAAAAAGTTAGCATT  
TAATTAGAATAGGATTTAAACCCCCCGGTCATTTCT  
GCTCAATACCATTCCCCTGAACAATTGACTCTATGTGGGATA  
TGCTCCAGCGCTACAACCTTGAAGTCAGGCTTCCTGGA  
TGTCAGCATCTGACTTTGGCCAGCACCTGTCCCGCGGATTTG  
TTCCAGTCCAACCTACAGCGACCCACCCTAACAGAGATG  
ACCAACACAACCAACGCGGGCCGCGCTACCGGACTTACATC  
TACCACAAATACACCCCAAGTTTCTGCCCTTTGTCAATAA  
CTGGGATAACTTGGGCATGTGGTGGTTCTCCATAGCGCTTAT  
GTTTGTATGCCTTATTATTATGTGGCTCATCTGCTGCC  
TAAAGCGCAAACGCGCCCGACCAACCATCTATCGTCCCATCA  
TTGTGCTACACCCAAACAATGATGGAATCCATAGATTG  
GACGGACTGAAACACATGTTCTTTTCTCTTACAGTATGATTAA  
ATGAGACATGATTCCTCGAGTTTTTATATTACTGACC  
CTTGTTGCGCTTTTTTGTGCGTGCTCCACATTGGCTGCGGTTT  
CTCACATCGAAGTAGACTGCATTCCAGCCTTCACAGT  
CTATTTGCTTTACGGATTTGTACCCCTCACGCTCATCTGCAGC  
CTCATCACTGTGGTCATCGCCTTTATCCAGTGCATTG  
ACTGGGTCTGTGTGCGCTTTGCATATCTCAGACACCATCCCC  
AGTACAGGGACAGGACTATAGCTGAGCTTCTTAGCCCT  
GGACGGAATTATTACAGAGCAGCGCCTGCTAGAAAGACGCA  
GGGCAGCGGCCGAGCAACAGCGCATGAATCAAGAGCTCC

TCAGAAATTGGTGGTCATGGTGGG  
CATAACTCAGCACTCGGTAGAAACCGAAGGCTGCATTCACTC  
ACCTTGTC AAGGACCTGAGGATCTCTGCACCCTTATTA

FIG.10Q

AGACCCTGTGCGGTCTCAAAGATCTTATTCCCTTTAACTAATA  
AAAAAAAAATAATAAAGCATCACTTACTTAAAATCAGT  
TAGCAAATTTCTGTCCAGTTTATTTCAGCAGCACCTCCTTGCCC  
TCCTCCCAGCTCTGGTATTGCAGCTTCCTCCTGGCTG  
CAAACTTTCTCCACAATCTAAATGGAATGTCAGTTTCCTCCTG  
TTCCTGTCCATCCGCACCCACTATCTTCATGTTGTTG  
CAGATGAAGCGCGCAAGACCGTCTGAAGATACCTTCAACCC  
CGTGTATCCATATGACACGGAAACCGGTCCTCCAACCTGT  
GCCTTTTTCTTACTCCTCCCTTTGTATCCCCCAATGGGTTTCAA  
GAGAGTCCCCCTGGGGTACTCTCTTTGCGCCTATCCG  
AACCTCTAGTTACCTCCAATGGCATGCTTGCGCTCAAAATGG  
GCAACGGCCTCTCTCTGGACGAGGCCGGCAACCTTACC  
TCCCAAAATGTAACCACTGTGAGCCCCACCTGTGAAAAAAACC  
AAGTCAAACATAAACCTGGAAATATCTGCACCCCTCAC  
AGTTACCTCAGAAGCCCTAACTGTGGCTGCCGCCGCACCTCT  
AATGGTCGCGGGCAACACACTCACCATGCAATCACAGG  
CCCCGCTAACC GTGCACGACTCCAAACTTAGCATTGCCACCC  
AAGGACCCCTCACAGTGTGAGAAGGAAAGCTAGCCCTG  
CAAACATCAGGCCCCCTCACCACCACCGATAGCAGTACCCTT  
ACTATCACTGCCTCACCCCTCTAACTACTGCCACTGG  
TAGCTTGGGCATTGACTTGAAAGAGCCCATTTATACACAAAA  
TGGAAAAC TAGGACTAAAGTACGGGGCTCCTTTG CATG  
TAACAGACGACCTAAACACTTTGACCGTAGCAACTGGTCCAG  
GTGTGACTATTAATAATACTTCCTTGCAAACATAAAGTT  
ACTGGAGCCTTGGGTTTTTGATTCACAAGGCAATATGCAACTT  
AATGTAGCAGGAGGACTAAGGATTGATTCTCAAAACAG  
ACGCCTTATACTTGATGTTAGTTATCCGTTTGTATGCTCAAAAC  
CAACTAAATCTAAGACTAGGACAGGGCCCTCTTTTTA  
TAAACTCAGCCACAACCTTGATATTAATACTACAACAAAGGCC  
TTTACTTGTTTACAGCTTCAAACAATTCCAAAAAGCTT  
GAGGTTAACCTAAGCACTGCCAAGGGGTTGATGTTT GACGC  
TACAGCCATAGCCATTAATGCAGGAGATGGGCTTGAATT  
TGGTTCACCTAATGCACCAAACACAAATCCCCTCAAAACAAA  
AATTGGCCATGGCCTAGAATTTGATTCAAACAAGGCTA  
TGGTTCCTAAACTAGGAACTGGCCTTAGTTTTGACAGCACAG  
GTGCCATTACAGTAGGAAACAAAAATAATGATAAGCTA  
ACTTTGTGGACCACACCAGCTCCATCTCCTAACTGTAGACTA  
AATGCAGAGAAAGATGCTAAACTCACTTTGGTCTTAAC  
AAAATGTGGCAGTCAAATACTTGCTACAGTTTTCAGTTTTTGGC  
TGTTAAAGGCAGTTTGGCTCCAATATCTGGAACAGTTC  
AAAGTGCTCATCTTATTATAAGATTTGACGAAAATGGAGTGC  
TACTAAACAATTCCTTCCTGGACCCAGAATCTTGGAAC  
TTTAGAAATGGAGATCTTACTGAAGGCACAGCCTATACAAAC  
GCTGTTGGATTTATGCCTAACCTATCAGCTTATCCAAA  
ATCTCACGGTAAAACTGCCAAAAGTAACATTGTGTCAGTCAAGT  
TACTTAAACGGAGACAAAACCTAAACCTGTAACACTAA

FIG.10R



CCATTACACTAAACGGTACACAGGAAACAGGAGACACAACCT  
CCAAGTGCATACTCTATGTCATTTTCATGGGACTGGTCT  
GGCCACAACACTACATTAATGAAATATTTGCCACATCCTCTTACA  
CTTTTTCATACATTGCCCAAGAATAAAGAATCGTTTG  
TGTTATGTTTCAACGTGTTTATTTTCAATTGCAGAAAATTTCA  
AGTCATTTTTTCATTAGTAGTATAGCCCCACCACCA  
CATAGCTTATACAGATCACCGTACCTTAATCAAACCTCACAGA  
ACCCTAGTATTCAACCTGCCACCTCCCTCCCAACACAC  
AGAGTACACAGTCCTTTCTCCCCGGCTGGCCTTAAAAAGCAT  
CATATCATGGGTAAACAGACATATTCTTAGGTGTTATAT  
TCCACACGGTTTCTGTGAGCCAAACGCTCATCAGTGATAT  
TAATAAACTCCCCGGGCAGCTCACTTAAGTTCATGTCTG  
CTGTCCAGCTGCTGAGCCACAGGCTGCTGTCCAACCTTGCGG  
TTGCTTAACGGGCGGCGAAGGAGAAGTCCACTCCTACAT  
GGGGGTAGAGTCATAATCGTGCATCAGGATAGGGCGGTGGT  
GCTGCAGCAGCGGCGAATAAACTGCTGCCGCCGCCGCT  
CCGTCCTGCAGGAATAACAACATGGCAGTGGTCTCCTCAGCG  
ATGATTCGCACCGCCCGCAGCATAAGGCGCCTTGTCTC  
CGGGCACAGCAGCGCACCTGATCTCACTTAAATCAGCACA  
GTAACCTGCAGCAGCAGCACCAATATTGTTCAAATCCC  
ACAGTGCAAGGCGCTGTATCCAAAGCTCATGGCGGGGACCA  
CAGAACCACGTGGCCATCATACCACAAGCGCAGGTAGA  
TTAAGTGGCGACCCCTCATAAACACGCTGGACATAAACATTA  
CCTCTTTTGGCATGTTGTAATTCACCACCTCCCGGTAC  
CATATAAACCTCTGATTAAACATGGCGCCATCCACCACCATC  
CTAAACCAGCTGGCCAAAACCTGCCCGCCGGCTATACA  
CTGCAGGGAACCGGGACTGGAACAATGACAGTGGAGAGCC  
CAGGACTCGTAACCATGGATCATCATGCTCGTCATGATAT  
CAATGTTGGCACAACACAGGCACACGTGCATACACTTCCTCA  
GGATTACAAGCTCCTCCCGCGTTAGAACCATATCCCAG  
GGAACAACCCATTCTGAATCAGCGTAAATCCCACACTGCAG  
GGAAGACCTCGCACGTAACCTCACGTTGTGCATTGTCAA  
AGTGTTACATTGGGCAGCAGCGGATGATCCTCCAGTATGG  
TAGCGCGGGTTTCTGTCTCAAAGGAGGTAGACGATCCC  
TACTGTACGGAGTGCGCCGAGACAACCGAGATCGTGTTGGT  
CGTAGTGTCATGCCAAATGGAACGCCGGACGTAGTCATA  
TTTCCTGAAGCAAAACAGGTGCGGGCGTGACAAACAGATC  
TGCGTCTCCGGTCTCGCCGCTTAGATCGCTCTGTCTAGT  
AGTTGTAGTATATCCACTCTCTCAAAGCATCCAGGCGCCCCC  
TGGCTTCGGGTCTATGTAAACTCCTTCATGCGCCGCT  
GCCCTGATAACATCCACCACCGCAGAATAAGCCACACCCAG  
CCAACCTACACATTCGTTCTGCGAGTCACACACGGGAGG  
AGCGGGAAGAGCTGGAAGAACCATGTTTTTTTTTTTATTCCA  
AAAGATTATCCAAAACCTCAAATGAAGATCTATTAAG  
TGAACGCGCTCCCCTCCGGTGGCGTGGTCAAACCTCTACAGC  
CAAAGAACAGATAATGGCATTGTGAAGATGTTGCACAAT

FIG.10S

GGCTTCCAAAAGGCAAACGGCCCTCACGTCCAAGTGGACGT  
AAAGGCTAAACCCTTCAGGGTGAATCTCCTCTATAACA  
TTCCAGCACCTTCAACCATGCCCAAATAATTCTCATCTCGCCA  
CCTTCTCAATATATCTCTAAGCAAATCCCGAATATTA  
AGTCCGGCCATTGTAAAAATCTGCTCCAGAGCGCCCTCCACC  
TTCAGCCTCAAGCAGCGAATCATGATTGCAAAAATTCA  
GGTTCCTCACAGACCTGTATAAGATTCAAAAGCGGAACATTA  
ACAAAAATACCGCGATCCCGTAGGTCCCTTCGCAGGGC  
CAGCTGAACATAATCGTGCAGGTCTGCACGGACCAGCGCGG  
CCTTCCCGGCCAGGAACCTTGACAAAAGAACCCACAC  
TGATTATGACACGCATACTCGGAGCTATGCTAACCAGCGTAG  
CCCCGATGTAAGCTTTGTTGCATGGGCGGCGATATAAA  
ATGCAAGGTGCTGCTCAAAAAATCAGGCAAAGCCTCGCGCA  
AAAAAGAAAGCACATCGTAGTCATGCTCATGCAGATAAA  
GGCAGGTAAGCTCCGGAACCACACAGCCCCCGACACCATT  
TTTCTCTCAAACATGTCTGCGGGTTTCTGCATAAACACA  
AAATAAAATAACAAAAAAACATTTAAACATTAGAAGCCTGTCT  
TACAACAGGAAAAACAACCCTTATAAGCATAAGACGG  
ACTACGGCCATGCCGGCGTGACCGTAAAAAAACTGGTCACC  
GTGATTAAAAAGCACCAACGACAGCTCCTCGGTCATGTC  
CGGAGTCATAATGTAAGACTCGGTAAACACATCAGGTTGATT  
CATCGGTCAGTGCTAAAAAGCGACCGAAATAGCCCGGG  
GGAATACATACCCGCAGGCGTAGAGACAACATTACAGCCCC  
CATAGGAGGTATAACAAAATTAATAGGAGAGAAAAACAC  
ATAAACACCTGAAAAACCCTCCTGCCTAGGCAAATAGCACC  
CTCCCGCTCCAGAACAACATACAGCGCTTCACAGCGGC  
AGCCTAACAGTCAGCCTTACCAGTAAAAAAGAAAACCTATTA  
AAAAAACACCACTCGACACGGCACCAGCTCAATCAGTC  
ACAGTGTAaaaaaAGGGCCAAGTGCAGAGCGAGTATATATAG  
GACTAAAAAATGACGTAAACGGTTAAAGTCCACAAAAAAC  
ACCCAGAAAACCGCACGCGAACCTACGCCCAGAAACGAAAG  
CCAAAAAACCCACAACCTTCTCAAATCGTCACTTCCGTT  
TTCCACAGTTACGTAACTTCCCATTTTAAAGAAAACCTACAATTC  
CCAACACATACAAGTTACTCCGCCCTAAAACCTACGT  
CACCCGCCCGGTTCCACGCCCCGCGCCACGTCACAAACTC  
CACCCCTCATTATCATATTGGCTTCAATCCAAAATAAG  
GTATAT

FIG.10T